

CONTENTS FOR MARCH, 1923.

Illustrations.

Orange Grove, Woombye, South Q'land	Cover
Mr. J. H. Lang	93
45-year-old Orange Tree at Howard, Q'land	102

Contents.

Answers to Queries: Glossing Prunes—Grafting on Winter Majetin—Black Aphis on Cherry	118
Australian Conference of Fruit-growers	89
Avocado, The	102-3
Australian Fruit in London	106
Bud Selection—Is it Necessary?	95
British and Australasian Market Reports	122-3
Beekeeping	114-15
Beautifying the Orchard Homestead	110-11
Citrus Grower—Annual Report of the Californian Fruit Exchange. Storing Oranges and Lemons.	104-5-8
Cotton on the Murray	103
Co-operation—or a Farce	87
Dried Fruits Department—The Drying of Prunes, Currants, Sultanias, Raisins—Grading of Dried Fruits—The Mildura Co-operative Fruit Co. Ltd.	98-100
Export Season, The	89
Freight, Reduction of	89
Fruit Cases—Branding for Export	100
Fruitgrowing under Irrigation	96-7
Homemaking and Upkeep	112
Marketing of Fruit	93
Manuring, Scientific Benefits of	94-5
Midsummer Night's Dream, A	89
News of the Month—Organizing the Fruit Industry—Berry Fruit Distribution—How American Fruitgrowers Organize—Open-air Markets—Superintendent of Horticulture	86-7
New South Wales—Murrumbidgee Irrigation Areas—Association Meeting—Curlwaa Irrigation Area—St. Ives Show 88, 101, 111	
New Zealand—Fruit Tree Embargo—"Dumping Cheap Australian Trees"—Federation Notes 88, 115, 124	
Oranges and Lemons, Storage of	108
Packing, Instruction in Fruit	113
Poultry Notes	114
Queensland—The Avocado—Cultural Items—District Notes 102-3, 111	
Rummy Ruminations, by Willie Wagtail	88
South Australia—Fruitgrowing under Irrigation—District Notes	96-7
Shows to Come	113
South African Fruit, Display of	108
Sugar Industry Seeks Favors—Mr. Bruce's Figures Challenged—Reply to Sugar Propaganda—Correspondence	90-3
Subscribers' Payments Received	120
Strawberries, Processed and Pulped	119
Tasmania—News and Notes	95-6
They Say	87-8
Victoria—Central Association Meeting—District News	116-7
Berry Distribution Failure	87
Western Australia—Advisory Board—District News	109

INDEX TO ADVERTISEES.

Books, Publications, etc.—	
"Fruit World" Pty. Ltd., 9 Queen-street, Melbourne, p. xxxii.	
Canning Machines—	
Bliss, E. W. & Co., Brooklyn, New York, U.S.A., p. xxvii.	
Heine, John and Son Ltd., Sydney, N.S.W., p. xxiv.	
Tombs & Howcroft Pty. Ltd., 369 Post Office Place, Melbourne, Vic., p. xxii.	
Cold Storage—	
Bender and Co., 100 Elizabeth-street, Launceston, Tas., cover ii.	
Cultivators, Ploughs, Etc.—	
Harvey, D., Box Hill, Vic., p. xiii.	
Dehydration—	
Latham, D. J., Sun Buildings, Queen-street, Melbourne, p. 109.	
Vincent, Geo., Oswald-lane, Darlinghurst, Sydney, N.S.W., p. xxvi.	
Dried Fruits, Etc.—	
McClure, Valentine and Co. Pty. Ltd., 49 William-st., Melbourne, Vic., p. xxxii.	
Mildura Co-operative Fruit Co. Ltd., Mildura, Vic., p. xxxix.	
Fruit Buyers—	
Brook, G. M. & Sons, Whiteman-street, South Melbourne, Vic., p. xxvii.	
Fruit Cases—	
Alf. Bloom, Mitcham, Vic., p. xxvii.	
O.T. Ltd., Port Melbourne, Vic., p. 117.	
Jno. Sharp & Sons Ltd., City-road, South Melbourne, Vic., p. xix.	
Fruit Tree Suppliers—	
Balhanah Deciduous Nurseries, Balhanah, South Australia, p. 120.	
Brunning, John and Sons, Somerville, 121.	
Gray, W. G., Allwood Nurseries, Hurstbridge, Vic., p. xxxii.	
Gembrook Nurseries, Emerald, Vic. (C. A. Nobelius & Sons), p. xxviii.	
Kinglake Nurseries, Yarra Glen, Vic. (J. W. Lawrey), p. xxv.	
Picnic Point Nurseries, Bairnsdale, Vic. (C. J. Goodman), cover ii.	
Two Bays Nurseries, Moorooduc, Vic., p. ix.	
Fruit Graders—	
"Cutler" (Tombs & Howcroft Pty. Ltd., 369 Post Office Place, Melbourne, p. xxii.	
"Lightning" Lightning Fruit Grader Co., Merrigum, Vic., p. 121.	
"Ellis"—E. W. Greenwood, 226-28 Flinders-lane, Melbourne, Vic., p. xxiv.	
Holiday Resorts.	
Victorian Railways, Melbourne, p. xviii.	
Insurance, Etc.—	
Farmers' and Settlers' Co-operative Ins. Co. of Aus. Ltd., 360 Collins-street, Melbourne, Vic., p. 111.	
Irrigation Machinery—	
Langwill Bros. and Davies Pty. Ltd., 110 Sturt-street, South Melbourne, (Vic.), p. x.	
Lime—	
Alkemade Bros., 440 Flinders-street, Melbourne, p. xx.	
Manures, Fertilisers, etc.—	
"Potash," Dalgety & Co., all States, p. xii.	
"Sulphate of Ammonia," Agents all States, p. 107.	
Medicines—	
"A.M.S.," T. A. Dickson, Geelong, Vic., p. 119.	
Motor Lorries—	
"Ford" One-ton Trucks: Tarrant Motors Pty. Ltd., Melbourne, Vic., p. xxxii.	
Orchardists' Requisites—	
McPherson's Pty. Ltd., 582 Collins-street, Melbourne, Vic., p. xxi.	

Orchard Tractors—

"Fordson," Tarrant Motors Pty. Ltd., Lonsdale-street, Melbourne, Vic., p. xxiii.

Power and Light—

Brandt Bros. Pty. Ltd., Elizabeth-street, Melbourne, Vic., p. xxvi.
Langwill Bros. and Davies Pty. Ltd., South Melbourne, Vic., p. x.
Western Electric Co. (Aus.) Ltd. Victorian agent: C. R. Foster, 262 Flinders-lane, Melbourne, Vic., p. xxx.

Refrigerating Machinery—

Werner, R. and Co. Pty. Ltd., Richmond, Vic., cover iii.

Seeds, Etc.

Brunning, F. H. Pty. Ltd., 64 Elizabeth-street, Melbourne, p. xx.
Sakata, T. & Co., Sakai-cho, Yokohama, Japan, p. xix.
Watters and Sons, 251 Swanston-street, Melbourne, Vic., p. 111.

Shipping Facilities—

Commonwealth Government Line of Steamers, offices in all States, p. 113.

Spray Material—

"Arresto" (Law Somner Pty. Ltd.), Swanston-street, Melbourne, p. 119.
"Blue Bell" Arsenate of Lead, 81 Queen-street, Melbourne, Vic., p. iii.
"Carlton" Arsenate of Lead and "Harbas" Spraying Oil, Mellor, F.R., 440 Elizabeth-street, Melbourne (Vic.), p. xii.
"Gumlypta," Gillard Gordon (Aust.) Ltd., Rozelle, N.S.W., p. 116.
"Harbas" Spraying Oil, E. Russell, 60 Queen-street, Melbourne, p. 124.
"Swift's" Arsenate of Lead, H. W. Peabody and Co., Sydney and Melbourne, p. xiv.
"Orchard" Brand, Buckeye Harvester Co., Francis-street, Melbourne, p. xix.
"Black Leaf 40," F. Chilton, City Fruit Markets, Sydney, N.S.W., p. ix.
"Vallo" Arsenate of Lead, A. Victor Leggo and Co., Melbourne, Sydney and Brisbane, p. vii.
"Black Leaf 40," Coastal Farmers' Co-operative Soc. Ltd., Melbourne, p. xxii.
Neptune Oil Co. Ltd., Queen-street, Melbourne (Vic.), p. xxi.

Spray Pumps and Guns—

"Bave-U" Power Sprayer, Russell and Co., Box Hill, Vic., p. xxviii.
"Kangaroo," Chandler, D and W., Pty. Ltd., Brunswick-street, Fitzroy, Vic., p. xxix.
"Doncaster," Langwill Bros. and Davies Pty. Ltd., South Melbourne, Vic., p. x.
Cooper "Perfect" Balance, Cooper Engineering Co. Ltd., Melbourne, and Sydney, p. 118.
"Nuprend" Spraying Outfit, Metters Ltd., Rundle-street, Adelaide, S.A., p. xxv.
"Roseberry" Nozzle, Buzacott & Co. Ltd., 7-11 Market-street, Sydney, p. xxvi.

Strapping Fruit Cases—

Gerrard Wire Tying Co. Pty. Ltd., 122 Sturt-street, South Melbourne, p. xvi.

Tree and Stump Pullers—

Trewhella Bros., Trentham, Victoria, stumping jacks, etc., p. v.
"Digger" Winch-Tree and Stump Puller, Quick Gears Pty. Ltd., Thornbury, Vic., cover iv.

Wrapping Paper—

Gabb, Chas. R. & Co., 88-94 Franklin-street, Melbourne, p. xx.

'FRUIT WORLD OF AUSTRALASIA.'

Representing the deciduous, citrus and dried fruits industry of Australasia.

Published the First of each Month.

Editorial and Management Notices.

Articles and Photographs.—The Editor will always be very pleased to receive articles and photographs for publication. Articles on spraying, pruning, drainage, marketing, and other cultural matters, and reports of meetings, are welcomed. Please write on one side of paper only; include name and address (not necessarily for publication). Press matter sent in an open envelope, marked "Printer's M.S.S.," postage rate: 2 ozs., 1½d. Photographs, if sent in an open-ended package, marked "Photos. only," will travel at 2 ozs., 1½d. A short description of the photos, should be written on the back.

Subscriptions.

The annual subscription, post free within Australia and New Zealand, is 8/6. All other places, 10/6, post free. New subscriptions can commence at any date. Subscribers should notify us immediately of any change of address.

Renewal Subscriptions are due during the last month of the term covered by the previous payment, and unless notified to the contrary, the fact that the subscriber continues to accept delivery of the journal, is taken as proof that continuation of the subscription is desired, and we will continue to send regularly until notified in writing or copies are returned through the post.

Advertisements.

"The Fruit World of Australasia" is an advertising medium of proved value. Advertising rates may be had on application to our Head Office, or to agents in the various States, as set out below.

Changes of copy for advertisements must be in our hands on or before the 17th of the month prior to publication.

Readers are asked to make their purchases from our advertisers, who cover all lines of interest to orchardists, at the same time mentioning this journal. By so doing, the grower, the advertiser, and this paper will benefit.

Every care is taken to publish advertisements from reliable houses only, and to see that advertisements of an undesirable nature are not published. The management reserve the right to refuse to publish any announcements that they may regard as undesirable, either from the point of view of the goods offered or in the wording of the advertisement, notwithstanding the fact that a contract may have been entered into for the use of a certain space.

"The Fruit World" offices (where copies and full particulars are obtainable) are as follows:—

Victoria (Head Office): 9 Queen Street, Melbourne. **New South Wales:** Carruthers, Farrum & Co., 77 King Street, Sydney. **South Australia:** W. F. McConnell, Grenfell Buildings, Grenfell Street, Adelaide. **Tasmania:** Saunders & Co, Murray Street, Hobart. **Western Australia:** D. L. Hetherington, Colonial Mutual Buildings, St. George's Terrace, Perth. **Queensland:** Gordon & Gotch Ltd., Queen Street, Brisbane. **New Zealand:** Gordon & Gotch Ltd., Wellington. **Dunedin and Auckland.** Great Britain: Harvey H. Mason, 1 Mitre Court, Fleet Street, London, E.C., England.

R. E. BOARDMAN, A.F.I.A., Managing Director and Editor.

E. H. WRAGG, Secretary and Advertising Manager.

Tasmanian Director: HON. L. M. SHOOBRIIDGE, M.L.C.

News of the Month.

ORGANIZING THE FRUIT INDUSTRY.

How to Avoid Gluts.

THE future of the fruit industry is in the hands of the men at present engaged in it. Various schemes have at times been set forth and attempted, with varying success and failure, but the great broad underlying principle has not, as yet, been fully grasped.

The ex-Minister for Trade and Customs (Mr. A. S. Rodgers) stated during his term of office that he could not get "a composite mind" amongst the fruit-growers, thus the National Advisory Council of Fruitgrowers was projected. While worthy enough in its objective, we venture to assert that it is not the solution of the problem.

Doubtless the fruit industry of Australasia, with its varied and oftentimes clashing interests, will gradually evolve; meanwhile the call is for leadership along sound, progressive, business-like lines.

We believe success lies in the direction of organizing the industry in sections—that is the secret of the co-operative effort of U.S.A., of which so much is heard.

True co-operation is not that of running mere selling agencies, it is something altogether bigger and more effective, viz., the control of the fruit by the growers' representatives, using every available channel of distribution, and coupled with an advertising campaign to increase the consumption.

For instance, last month there was a glut of Peaches, Plums and Pears; prior to that, Lemons were a drug on the market, yet we believe that, had the growers been sufficiently well organized, the whole crop could have been satisfactorily placed in Australia, with satisfaction both to the general public and the grower.

Here is a simple illustration:—

On Tuesday, February 20th, beautiful William's Pears were selling at 2/- per bushel case. That price does not pay the grower, and the general public on the whole has no idea that the fruit is being sacrificed. If 10,000 people, say in Melbourne, could have been simultaneously spoken to and asked this question: "Did you know that Pears were selling at 2/- per case in the market?" how many would have answered in the affirmative. We believe not five would have known of the glut.

The point is just this: There is no effective touch between the industry and the general public. If the consumption of fruit could be doubled in Australia—an ideal easy of accomplishment—there would be no problems of distribution. The remedy lies in the hands of the growers themselves, and they will receive hearty public support in any attempt to make their industry articulate.

The dried fruitgrowers have succeeded mainly through their excellent organization—The Australian Dried Fruits' Association. That association has careful statistics of quantities produced, decides the standard of packing, the quantity for export and for sale in the local market, and even fixes local prices, yet the A.D.F.A. does not in itself handle one box of dried fruits; it works through trade channels on a defined policy.

Citrus growers are moving out on similar lines; statistics are being obtained of the quantities available in various districts, and the capacity of the Australian markets to absorb same. Portion is set aside for export, and an attempt is being made to regulate the local market. It will be of interest to know that this is largely along the lines of the successful American Co-operative enterprise, although in the States there is no attempt at price fixing. Whether or not the Victorian Central Citrus Association will attempt price fixing again is a matter for the careful decision of the committee, but one thing is certain, and that is, that a sincere effort is being made to put that section of the industry on a sound basis.

The berry growers operating through the Housewives' Association were steadily consolidating their position, and but for this season's debacle would have been on the high road to prosperity. But they should not be discouraged; one thing has been demonstrated, viz., that there are not sufficient berries grown to supply the demand.

Apple growers have, to a large extent, solved their problems of increased production by the erection of co-operative cool stores. Here again is an example of co-operation along sound lines. The export trade also relieves the local market besides, of course, bringing much-needed money into Australia.

Fruitgrowers in the several Australian States have, at sundry times, requested their State Governments to give them an opportunity of self-help, i.e., by means of an orchard tax, but this has not, so far, found favor with the State Parliaments. This matter is still being pushed.

Instead of sitting down and wringing one's hand, the need is all the more insistent for growers to organize along the lines of obtaining statistical information and organizing in groups under sectional executive heads to assist in the effective distribution.

The need for this kind of organization is very insistent. With some kind of fruits the local market on its present basis is oversupplied, yet in this young country the word "over-production" should never be heard, seeing there is another word which fully expresses the truth, viz., "under-consumption." These are not the days for weeping and wailing and gnashing of teeth because the Government will not do this or persists in doing that. The call is here and now for wise, strong, able leadership to organize the industry in its several sections, and the utilization of proved business methods to distribute the fruit supplies to a waiting, willing and sympathetic public.

BERRY FRUIT DISTRIBUTION.

Severe Disappointment.

THE BREAKDOWN of the largely-advertised scheme in Victoria for distribution of berry and other fruits, has caused disappointment and losses to growers and the general public.

The Household Supplies Co. Pty. Ltd., with a limited capital and no experience in fruit handling put forward to the berry fruitgrowers the scheme of direct distribution. Many growers joined in the scheme and signed contracts to market their fruits through the company. Before any berry fruits were distributed, the scope of the scheme was enlarged to include every other kind of fruit produced in the State.

The scheme has crashed badly, and it is reported that fruitgrowers are out of pocket to the extent of over £2,500; that the general public has paid £900 in deposits for which no fruit has been delivered, and that several business firms in the city are also heavy losers. The whole affair is very regrettable. It is feared that as regards some of the growers' leaders, their enthusiasm got the better of their common sense. Level-headed and experienced business men, when asked their opinion in the initial stages, unhesitatingly condemned the scheme as unpracticable.

An order of the Court has now been given for the Company to be wound up.

A regrettable failure like that of direct distribution through the Household Supplies Co. Pty. Ltd., while causing losses, and soreness, should not be taken by the growers in the spirit of defeat but rather in the spirit.

"That men may rise on stepping stones
Of their dead selves to higher things."

This unfortunate experience points out one way "How not to do it," and only emphasizes the point to which we have repeatedly drawn attention, viz., the necessity for each section of the industry to organize and to appoint well-paid, capable men to direct the general policy.

Attention is directed to an article elsewhere in this issue, on the matter of organization in the fruit industry.

HOW AMERICAN FRUITGROWERS ORGANIZE.

Mr. W. J. Foster, Growers' Representative and Chairman of the Canned Fruit Pool, who recently returned from America, states he was impressed with the methods of organization amongst the growers. He found a Citrus Association, Peach Growers' Association, Fig Growers' Association, and associations of growers for Apples, Pears, Prunes, Nuts, Dried Fruits, etc., etc.

Speaking of the Citrus Growers' Association, as typical of the others, Mr. Foster states that the growers are organized into associations in their various districts, with sub-councils in the larger centres, culminating in an executive body which controls the complete citrus producing interests. This association is not a trading concern, but it

controls the association's policy and has trained men in the various centres of distribution, who co-operate with the distributors in order that each market shall be fully supplied. At the same time its representative is watchful in order to secure the best prices for the growers. Every possible avenue of distribution is followed up. A small charge is levied on each case of fruit, which provides funds necessary for conducting the whole operations.

These executive men receive very high salaries. A system of propaganda is decided upon and gives a happy touch between the Citrus Association, the commercial interests, and the general public. The same system is operating with regard to other fruits.

Mr. Foster believes that to develop the Australian fruit industry it is necessary to follow on similar lines, though, of course, none recognize better than he does the difficulties in organizing the growers.

OPEN-AIR MARKETS.

The open-air market system, that conspicuous triumph of the Metropolitan and Districts Fruitgrowers' Association (Victoria) continues to prosper. At the latest market opened (East Kew) 7 tons of fruit were disposed of on Saturday morning, February 17. But for the open-air market, this quantity would have gone forward to Melbourne, and would have tended to depress prices. Nine open-air markets are now in operation around Melbourne, as follows:—

Richmond (2), Collingwood (2), and one each at East Kew, Glenhuntly, Carnegie, East Melbourne, and Hawthorn.

The secretary, Mr. J. W. Aspinall, Bishop Street, Box Hill, Vic., estimates that over 1,000 cases per week are sold at these open-air markets.

Instead of nine centres thus open, there should be at least fifty. Neither the wholesale or retail trade would suffer. It would be purely extra consumption of fruit.

IS THIS CO-OPERATION?

Or a Farce?

Offensive attitude of Victorian Orchardists Co-operative Association.

On several occasions correspondents have drawn attention to the unsatisfactory nature of their dealings with the Victorian Orchardists' Co-operative Association Ltd.

In the Melbourne "Age" of Saturday, February 17th, statements are published on the authority of the Victorian Orchardists' Co-operative Association, (or someone speaking in its name, dealing with the canned fruit pool, making grave charges and worse suggestions; in particular, a most unfair attack was launched on Mr. W. J. Foster, growers' representative and chairman of the present canned fruit pool.

Who supplied the "Age" with these unfounded statements and suggestions of dishonesty? Was it the Victorian Orchardists' Co-operative Association, or some one with a personal grievance?

With the figures, as revealed in its last balance-sheet, one would have thought the V.O.C. should have been the last to offer gratuitous advice on finance.

Mr. Foster replied in the "Age" on February 22nd, categorically denying the offensive statements and imputations.

Mr. R. Mair, speaking as a director of the V.O.C., denies having given authority for the publication of the matter referred to.

Was the matter supplied to the "Age" by one of the Directors without authority? And if so by whom?

These are not the days for destructive statements in the public press. Never was the time more needed for the note of optimism to be publicly sounded and for the growers to unite so that they can speak authoritatively on matters of policy.

SUPERINTENDENT OF HORTICULTURE.

The Victorian Cabinet has decided that the applications for the position of Superintendent of Horticulture are unsuitable. The Cabinet has decided, therefore, that enquiries should be made abroad, and Professor Elwood Mead, during his visit to New South Wales from America, would be asked to suggest a suitable man for the position.

This is a slur on the good name of Australia.

There are several men who could fill the position with dignity and credit.

Letter of protest from "Orchardist" is held over till next issue.

They Say

That Tasmanian growers are moving for an orchard tax bill, and that N.S.W. growers are also hopeful of securing similar legislation.

That the "Fruit World" received a free advertisement through a rude article in the Australian Sugar "Journal."

That now is the time for sowing cover crops for turning under next spring.

That the Australian Conference of Fruitgrowers, to be held at Melbourne in May, is of great importance to the industry.

That the Sugar Producers' Association recently spent £4,000 in a great newspaper "drive," to influence public opinion.

That now is the time for budding of Apples, Pears, and Peaches, where the sap is running freely.

That the publicity given in the "Fruit World" to the "packing classes" being conducted by the Victorian Agricultural Department, has done a lot of good. This excellent work by the Department is to be highly commended.

That the English scientists who have come to study our fruitgrowing and shipping conditions are being shepherded by the Department of Agriculture. If left to themselves they might hear that the growers don't want "precooling."

That the "Trevatt" Apricot is a distinct variety, despite some opinions to the contrary.

That the idea of importing an American to become Victorian Superintendent of Horticulture is not generally approved by the growers.

That the California Fruitgrowers' Exchange, which has handled in 19 years £100,000,000 in returns for citrus growers, works harmoniously with the wholesale and retail fruit trade, and utilizes every possible channel for distribution.

That when we were schoolboys the saying was, "Abuse is no argument." Some folk in Queensland might think this over.

That the Victorian Assistant-Minister of Agriculture (Mr. Pennington), expressed great displeasure because growers invited to a conference did not turn up.

That Victorian irrigation fruit-growers are deserving of congratulation in the organising of fruit trains from Shepparton to Merrigum and other centres, to the wheatgrowing and other general farming districts where fruit is scarce. The Railway Department gave valued assistance.

NEW ZEALAND FRUIT TREE EMBARGO.

Not to be Raised.

The Victorian Department of Agriculture advises that a letter has been received from the Director-General of Agriculture, Wellington, N.Z., as follows:—

"Full consideration has been given to the resolution passed at a recent meeting of the Australian Association of Nurserymen and Seedsmen, but I regret having to inform you that it is not intended to remove the embargo at present."

ST. IVES (N.S.W.) SHOW.

The Annual Show at St. Ives, (N.S.W.) held on January 12th, was an unqualified success. The president Mr. J. Hughes, the secretary Mr. A. K. Bowden, the Committee and exhibitors are all to be heartily congratulated. In the first section Mr. F. Chilton secured 15 first prizes and 5 seconds, Mr. A. Williams being runner up. In the single farm exhibits, (a most attractive feature) the honours were secured by Mr. R. Shinfield, (1) Mr. W. G. Russell, (2) Mr. J. Scott's exhibit was highly commended. There were various other sections at the show, also ring events. Over 3,000 people attended.

RUMMY RUMINATIONS.

(By Willie Wagtail.)

Sugar—Precooling.

Berry Fruit Distribution.

Dere Mr. Editor,—

You needn't think that because you haven't heard from me lately that I've not been thinking about things in general. I've been ruminating.

First of all my high-tariff and sugary friend Massy Greene got pitched out of Parlyment, then Arty Rodgers got pinked by the Labor Party, while as fer ole Billy Hughes! Well, poor ole Bill, but he died game, didn't he?

I say, what made Mr. Bruce (you see I say "Mr.") while he was Treasurer, butt in on the sugar argument? Mr. Bruce ups and sez that we've got, and alwuz has had, the cheapest sugar in the world or something like that, and up comes the fruitgrowers with a club an' Biff! I seen the stars up here at Blind Dog Creek. "Cheap sugar for export" roars the fruitgrowers' sekretary, 'no blossomin' fear. We roared and roared fer years till at last they chucked out a rebate like a bone to a dog. An' even with the rebate it still left us out in the cold, 'cause other places had sugar cheaper. Besides" (an' here I can pictur' that club descendin') "what about the home market? Sugar moves up from eighteen to thirty-nine quid a ton and down comes fruit from fifteen to ten quid a ton, and less than that, and orchards dropping from seventy to thirty quid an acre. Lor'! luv a duck, what yer givin' us, etc., etc."

But, oh, I say, have you read the "Sugar Journal"? They sent me one on the nod, 'cause I'm a bit of a head, y' know. I did larf at the bang they had at you Mr. Editor. I seen the same as you did, the printed statement that the Gov'ment was going to buy all the sugar cut in 1923, not simply that cut before June 30. But the feller that wrote the article must have gone to the pub and had a long vinegar, and then put a mustard plaster round his topknot, with his feet in boiling ink. I guess he should have gone to the visitin' English scientists; they'd have pre-cooled him before he rote like he did. But it's all right, I leave it to you to reply. You'll do me.

Speaking about them 'ere scientists reminds me—well, where are they, anyhow? Has our Precooling Department got 'em in hand? Funny thing, ain't it? We growers don't want "precooling"; we tells the Gov'ment so. The Railways sez they ain't got near enuf ice trucks. We sez we wants to do our bizness in the usual decent way. "No," sez the Gov'ment, "we'll precool the fruit and you, too, if you're not careful, and will set up a Department to run the export trade. Expense! Hang the expense; you've got to pay, anyhow." So as the Agricultural Department (in Victoria) can only tork of precooling, I calls it the Precooling Department.

What about this 'ere direct distribution stunt? Some smell, eh? Whew, it is high. I'm sorry the growers are going to lose so much money; it's hard enuf to earn at any time. Some people I know in the city paid deposits and are still waitin' for the fruit—I hear there are thousands like that. Can't imagine what the growers was thinkin' about, to be blinded by such a half-baked scheme. Willie heard the scheme put up, but he sez, "No good to me, I'm only little Willie, but that 'ere scheme sounds too easy; there's a catch somewhere; it don't smell nice, Nuthin' doin'." Some of the country boys who gave their good names as directors and managers must be havin' a rotten time, poor blokes, but I arsts why they didn't inkwire about the promoters first.

I wanted to write some more, but one of my hosses has got an attack of Brown Heart or somethin'. Wish I could pre-cool him.

Good-bye. More next month.

WILLIE.

Personal.

Mr. A. S. Hopkins, general manager of the Mildura Co-operative Fruit Co. Ltd., left for London by the R.M.S. "Orsova" on 17th February. Mr. Hopkins expects to be absent from Australia for about 6 months; he is proceeding to England for the purpose of investigating all matters connected with the sale of dried fruits in the United Kingdom on behalf of his company. During his absence Mr. Hopkins will, in all probability, pay a business visit to the Continent and Norway and Sweden, and he contemplates returning to Australia via Canada and U.S.A. in order to carry out further investigations there in connection with the dried fruits business.

Alfred Millis & Sons Pty. Ltd. was registered on December 21, with an authorized capital, £20,000, in 10,000 shares of £2 each. To acquire as a going concern the business of fruit and produce merchants carried on by A. Millis and Sons, Western Market, Melbourne. Subscribers for 1 share each are T. E. Millis, F. O. Millis and L. N. Millis, all of whom are directors. Registered office, Western Market Buildings, Collins-st., Melbourne. Principal object: To acquire as a going concern the business of fruit and produce merchant carried on by Thomas Edward Millis, Frank Ormond Millis, Leslie Norman Millis, Elizabeth Annie Millis, Florence Maud Millis and Nellie Victor Millis at Melbourne or elsewhere.

The Victorian Government has granted a loan of £250 to the State Fruit Advisory Board.

"The Fruit World."—Readers would assist the management by paying subscriptions as soon as accounts are rendered.

Subscriptions can be sent direct to our offices in the several States, or copies can be ordered through your newsgent.

THE EXPORT SEASON.

Apple growers and exporters are having a busy time just now. The export season opened in mid-February, and the sailings are as follow:—

S.S. "Boorara," from Beauty Point (Tas.), with 8,600 cases; s.s. "Port Chalmers," from Beauty Point, 24,700 cases; s.s. "Persic," from Hobart, for London and Liverpool, 46,900 cases; s.s. "Sophocles," from Melbourne for Hull and London, 38,800 cases; s.s. "Orsova," for London, carrying 11,600 cases from Hobart and 3,204 cases from Melbourne; s.s. "Surrey," from Hobart for London and Liverpool, 47,749 cases; s.s. "Port Albany," for Hull and London, carrying 39,000 cases of Apples from Hobart and 7,000 cases of Apples and Pears from Melbourne.

At the time of writing we have not the details as to what quantities any of these ships are loading at Pt. Adelaide or Fremantle.

During March the export season is at its height; particularly heavy shipments are going forward from Tasmania.

Regarding the report in our February edition, we are asked by Capt. W. J. Wade, the Australasian representative of the Port of Manchester, to note that the s.s. "Surrey" has Manchester as her first port of call after leaving London; the same applies to "Argyllshire," and "Somerset" sailing in March.

REDUCTION OF FREIGHT.

The Conference Shipping Lines have decided to reduce the freight on fruit from 5/- to 4/6 per bushel case.

The freights thus are:—
Commonwealth Government Line, 4/- per case.

Other lines, 4/6 per case.

AUSTRALIAN CONFERENCE OF FRUITGROWERS.

Meeting at Melbourne in May.

The Australian Conference of Fruit-growers will hold its annual meeting at Melbourne, commencing May 7th, presided over by Mr. J. H. Lang (Harcourt, Vic.).

The Conference will be preceded by the Annual meeting of the Pomological Committee.

There are many important matters to be decided, and great interest will centre in the event.

A preliminary programme has been sketched, as follows. (This is subject to alteration.)

Monday, May 7.—Conference sessions, all day and evening.

Tuesday, May 8.—Conference session, morning and afternoon; evening, complimentary dinner.

Wednesday, May 9.—Conference sessions, morning; afternoon, visit Ringwood district; evening, smoke night.

Thursday, May 10.—Motor trip, Wandin district, all day; evening, conference session.

Friday, May 11.—Visit Harcourt, stay overnight.

Saturday, May 12.—12.45 p.m., leave Harcourt, to catch interstate trains.

A MIDSUMMER NIGHT'S DREAM.

A Tragedy.

(By Bill Waggleweapon).

Foreword.—Bill Waggleweapon is the office boy of the "Fruit World." As the senior reporter wanted to have a shave he sent Bill to report a meeting of the Fruit Council. Bill says he was ejected because his boots squeaked. So he listened at the keyhole, he states (a practice we condemn), and presents the following report which he swears is correct. His oath is, "Strike me pink."

Characters:

Lord Penningtonius A Minister of State
Wadio A Trader
Aircidius
Macnabbium
Meekingski
Growers of Fruit
An Officer of the Court

Scene 1.—The Minister's State Room.

(Enter Lord Penningtonius and Scribe.)

Pen.: Well, scribe, what are our tasks to-day?

Scri.: My Lord, conferences galore, for you must speak

On subjects diverse, butter, meat, wheat, Cheese, honey, beeswax, staggers in horses,

Tick in sheep, cold storage, pre-cooling, And last, not least, on fruit.

Pen.: Yea, last and least, for these fruitgrowers are a scurvy lot

I cannot stand them, a pain they give As when one eateth apples green.

Are all my speeches ready?

Scri.: Yea ready, sire. Here they are, all written by the men

Who know their jobs.

(Exit Scribe.)

Pen.: 'Tis well. For I must confess, that of these subjects

I know not much—nay, nothing. But what's the Department for, if not to write

Speeches for Ministers: that's it, of course,

And so the papers will report my speech, Full rounded and embellished with bright

yarns,

That my constituents will read and think me big.

Ha! ha! such stories I can tell; that's where I shine;

But once I do recall, I made a speech At a fruit conference. 'Twas Burnley,

so I think;

Whilst telling there a rich joke about A fifty-fifty horse and rabbit stew,

And a rude fellow did roar out "Rats," Or "cats" or other epithet, maybe 'twas

"Gas!"

Never will I forget it, nor forgive.

(Enter Aircidius, Wadio, Macnabbium, Meekingski.)

Meek.: Pardon, my Lord, I have come to report

That the fruit conference is off.

Pen.: Off? Off what? You're off your onion;

Now what the devil is this thing you say?

Wadio: Only two of them, my Lord, the rest are picking plums.

Pen.: Or picking winners?

Mac.: I hear the growers are not pleased Because you cancelled their appointment to the council

And put in whom you pleased.

Pen.: The time is out of joint, oh! cursed spite,

That ever I was born to set it right. Why do they grow fruit at all? I'd like to know.

Why don't they all grow sugar? They'd make some money then.

For I will choose just whom I will, To sit in council and decide

Matters of grave policy. Here am I The one and only Penningtonius. Spare me days!

Why can't these growers recognize a chief

When they see one?

Air.: (aside) His Lordship's warm; he needs to be precooled.

Pen.: The export trade in fruit is growing large,

Growers and traders seem to work on decent lines

Yet my Department wants to have a cut, So we demand precooling, which, of course, you know

Is but another word for our control; We are not greedy but we like a lot.

Now, go to blazes! all of you, and lively, too,

And in hell you will precede all others who grow fruit

They're only fit for such a place.

Air. (aside): And no precooling there. Ye gods! The airs that men put on

When clothed with brief authority.

Exeunt.

Mr. W. H. Everard, M.L.A., Appreciated.

Mr. W. H. Everard, M.L.A., is to be congratulated on his consistent and effective advocacy of the fruit industry. Mr. Everard recognizes the potentialities of the industry and believes that it has a big future in the development of Australia.

In regard to the establishing of open-air markets, Mr. Everard has rendered fine service. The promised Government grant of £150 has been obtained.

It was Mr. Everard who pressed for the recognition of the services rendered to horticulture by Mr. J. Cronin (now Curator of the Melbourne Botanic Gardens) thus securing for Mr. Cronin the payment of his salary during his recent serious illness.

In fighting against the closing of Melbourne fruit shops, in advocating justice to the fruitgrower in regard to the present inequitable sugar position, in urging the appointment of a Superintendent of Horticulture, and in a score of other ways, Mr. Everard stands out conspicuously as a big personality, and one who must take yet higher office in parliamentary life.

The Sugar Industry Seeks Favors.

Renewal of Agreement or Sugar Pool and Prohibition of Importations.

The "Fruit World" Replies to Queensland Attack.

The "Sugar Journal" has seen fit to launch a vindictive attack against the "Fruit World."

When Mr. Pickwick went to Eatanswill, he found two newspapers violently in conflict. The Eatanswill "Independent" spoke of the "vile and slanderous calumniator the 'Gazette,' and these epithets were mutually hurled—"That false and scurrilous print," "That disgraceful and dastardly journal," "Our obscure and filthy contemporary in some disgusting observations, etc." "What does our dastardly and mole-eyed contemporary mean?"

So the "Sugar Journal" emulating this high and noble example has attacked the fruitgrowers' paper. Here are some of the journalistic gems in its issue of January last:—"Constant gross misrepresentations to confuse and prejudice the fruitgrowers"; "absurd and preposterous statement"; "the alarming bogey raised by the 'Fruit World'"; "too utterly absurd for comment"; "really so ignorant"; "scaremonger tactics"; "to violently prejudice and inflame the minds of the growers"; "only fooling themselves"; "amazing effrontery"; "the smokescreen thrown out by the 'Fruit World'"; "self-condemned as a false leader."

Only a few more such phrases are necessary; possibly Mr. Pott, of the Eatanswill "Gazette" could supply them.

So much for the ill-tempered editorial in the "Sugar Journal," in which the writer admits at the opening of his article, that he cares nothing for the "ethics of debate."

There was no need to tell us that.

Apparently he is a stranger, too, to the ethics of honesty and commonsense.

Now what is the "Sugar Journal" so excited about?

Just this—the suggestion in the "Fruit World" that the continuance of the embargo would be sought at the conclusion of the present agreement (June, 1923).

AND A CONTINUANCE OF THE EMBARGO IS BEING SOUGHT FOR THE NEXT FIVE YEARS.

So in one sentence the "Sugar Journal" answered.

The fruit industry will resist that request because it is unfair; it is in the nature of "giving favors" to one industry at the expense of others.

From the whining and injured tone of the "Sugar Journal" one might be forgiven for thinking that the opulent fruit industry had for years been oppressing the sugar people. Yet the position is exactly the reverse. The fruit industry, particularly that section producing jam and canning fruits, has suffered and is still suffering grievously because of the high price and Government control of sugar.

Now, in brief, what is it exactly that the fruitgrower takes exception to in regard to the sugar position?

1. The unfair preference given to the sugar industry to the detriment of the fruit and other industries.

2. The redtape and cumbersome methods of Government control during and immediately after the war.

3. The embargo against the importation of sugar; the refusal of the Government to buy, or allow the growers to buy, when sugar was very cheap in Java.

4. The cancellation till the 1922 fruit season of the rebate on sugar exported in jams, etc.

5. The huge losses incurred by the Government through faulty buying abroad to make up the Australian shortage.

6. The curtailment of fruit purchases by factories and housewives because of the high price of sugar.

7. The making of an agreement in 1920, two years after the war had ended, by the Commonwealth Government to purchase the sugar crop for three years at inflated prices.

8. The depreciation of orchard values (lands producing jam and canning fruits) because of the Government sugar policy.

For any organization, journal (?) or person to say that the fruit industry has not suffered, and is not still suffering because of sugar control, is to utter a great untruth, and a stupid one at that.

If any one doubts, let him recall the heavy annual wastage, and even till as late as only last month, of Plums and other soft fruits; whilst a visit to the irrigation areas where orchard lands have been reduced from £70 to £30 per acre, would tell its own story.

The fruit industry wishes no harm to the sugar industry, but it asks the right to be allowed to develop along normal lines without being hampered by wealthy organizations or conflicting political expedients.

Or, in other words, the right to import sugar, pay the duty of £9/6/8 for local use, and to receive a rebate of the duty on re-exportation.

The "Fruit World" Hits Back.

The "Fruit World" prefers to pursue its peaceful way, in an endeavour to adequately represent an important and expanding primary industry. Our motives are honest; many valued reforms have been brought about through our efforts.

The "Sugar Journal" is hardly worth our notice, being a mere advertising print issued by the Australian Sugar Producers' Association Ltd., still we have decided to reply to the editorial in this journal (?).

Not content with publishing their fierce article, they also sent copies far and

wide to fruitgrowers, with a covering letter from one G. H. Pritchard, secretary of the Australian Sugar Producers' Association Ltd. Not seeking new subscribers, surely?

No; just propaganda—for which someone has to pay.

Several fruitgrowers have called on us, and others have written us amusing letters.

But the situation calls for reply.

Our cause is just, so there is no need for following the example of ill-temper set by the "Sugar Journal."

Now, what is the "Australian Sugar Journal"?

Is it a responsible publication run on the usual lines, or is it a mere advertising monthly pamphlet issued by a wealthy association?

We will turn to the paper itself for the answer.

It is stated to be "issued by the Australian Sugar Producers' Association Ltd."

This is what they say of themselves!

"The Sugar Journal," April 8th, 1921, states:—

"The statement of receipts and expenditure of the Australian Sugar Producers' Association for the 12 months ended 30th March, 1920, was read by the Secretary, and adopted on the motion of Mr. Johnson. A resolution was also adopted on the motion of Mr. Duffy, seconded by Mr. Curlewis, to the effect that the defence and fighting funds be kept as a separate account, apart from the general accounts of the Association."

[No figures, however, were published.—Ed. "F. W."]

"The Australian Sugar Journal."

The Secretary read the report and balance-sheet in connection with the "Australian Sugar Journal." The President, in reply to questions, stated that the amount due on unpaid subscriptions had not been brought into the account. In addition to paid subscribers, the journal was forwarded to all members of the Federal Parliament and State Legislative Assemblies; he could assure delegates that as far as the Federal Parliament was concerned, the journal was very regularly read and not infrequently quoted from both in the House and in the Southern press, and he was sure that quite outside of the industry in this State, the journal had considerable influence in moulding public opinion on questions connected with the sugar industry.

Mr. Young moved the adoption of the report and balance-sheet as read. He regarded the position as remarkably good considering the difficulties the journal had to meet, and he congratulated the management on the marvellous way in which they had kept down the expenses. He regarded the "Sugar Journal" as one of the best assets the Association possessed. From the start he had always been in favor of its establishment. The Association had proved the value of the journal over and over again, and he was convinced that the report showed a very fine position notwithstanding the small loss on the year's operations. Mr. Hardy seconded the motion, which was carried unanimously.

[No figures, however, were published.—Ed. "F. W."]

So, then, the "Sugar Journal" on its own admission is an "asset" of the Australian Sugar Producers' Association Ltd.

It is sent "free" to Federal and State Members of Parliament; its object is to "mould public opinion." The job of the management is, amongst other things, "to keep down expenses." The item "unpaid subscriptions" (whatever that may mean) is not worth bringing to account.

To accomplish its ends, the Australian Sugar Producers' Association Ltd., which

advertises in many ways, issues a monthly print entitled "The Australian Sugar Journal," purporting to be a journalistic enterprise, yet is content to run the paper at a loss to serve its own purposes.

At least this will be said for the "Fruit World": It is open to publish the opinions of those who disagree with its policy. Frequently has space been found for letters by the secretary of the A.S.P.A., Mr. Pritchard, and others interested in pushing the sugar interests.

The "Sugar Journal," on the other hand, rejects letters from those representing the fruit industry and will not publish the information sent.

Members of the Federal and State Parliaments will, in future, know how much respect to pay to the "Sugar Journal." *This is what its readers think—*

"Sugar Journal," Dec., 1920: "A few days ago we received a letter from one of our subscribers in which he stated he had been taking the 'Australian Sugar

sociation apparently has plenty of money. Here is an extract from the "Sugar Journal" of Nov. 3, 1922:—"The propaganda work of the Australian Sugar Producers' Association took the form of a great newspaper 'drive.' The cost was between £3,000 and £4,000."

But does the Australian Sugar Producers' Association Ltd., adequately represent the industry? Many think not. In a letter just to hand from the *United Canegrowers' Association*, the heading of the letter claims it to be "The premier organization in the Commonwealth, serving the Sugar Canegrowers." Thus the Australian Sugar Producers' Association Ltd. does not speak for the canegrowers; they prefer their own organization, viz., The United Canegrowers Association.

Altogether the A.S.P.A. and its propaganda print (the Australian Sugar "Journal") has made a sorry showing, but doubtless they think, like the heathen in scripture, they will be "heard for their much speaking."

Examine the following for consistency:—

Extracts from the "Sugar Journal" (issued by the Australian Sugar Producers' Association Ltd.):—

April, 1921.—At the half-yearly conference of the A.S.P.A., Senator Crawford said: "If foreign sugar could be obtained for the canned fruit and jam export trade at a lower price than that at which Queensland producers could afford to supply it, they would be quite prepared for those interested in fruit export to obtain that sugar in future on the same terms as in the past." He moved:—

"That the Australian Sugar Producers' Association, recognizing the great importance of the fruit industry to the Commonwealth, favors the rebate of duty on imported sugar used in the export trade of jams, jellies, and preserved fruits, as in the pre-war period."

Mr. Jodrell seconded the motion, which was carried unanimously.

Nov. 3, 1922.—The new Parliament will meet in February or March next, thus there will be ample time for further efforts in the direction of a renewal (of the sugar agreement) so ardently desired for the stabilising of the industry

[The agreement carries with it the prohibition against importations.]

Feb. 1923.—1. Sugar conference resolutions:—"That in view . . . this conference strongly urges upon the Commonwealth and State Governments the urgent necessity of renewing the agreement at the same price, for a period of five years."

Failing the renewal of the agreement, it was decided to request a Government financed pool for five years, and

3. While the pool is in operation the Commonwealth Government to prohibit the importation of foreign sugar, except to make good any Australian shortage.

SUGAR AND FRUIT.

Mr. Bruce's Figures Challenged.

And the "Sugar Journal" Effectively Answered.

Fruitgrowers have suffered severely owing to Government control and the high price of sugar; this is so apparent and is so keenly realized by growers, that it is needless repetition to affirm it.

Yet the Australian Sugar "Journal," an advertising print issued by the Australian Sugar Producers' Association, in its issue of January last, quotes in full a statement made in December by the then Treasurer (Mr. Bruce), but conveniently forgets to publish the complete answer as published the following day by the hon. secretary of the Australian Conference of Fruitgrowers.

No answer was furnished by Mr. Bruce to the published statement, so it must

be presumed he accepted the position as set out by the fruitgrowers.

Mr. Bruce then stated:—

"I have been most surprised to hear that the conviction seems to have spread amongst fruitgrowers that the depression which faces the fruitgrowing industry to-day is in some way due to the price of sugar . . . It seems that these fruitgrowers believe that the manufacturers of jams, preserves, etc., have to pay such a high price for their sugar that their manufacturing costs have been inflated to the extent that they cannot possibly compete with manufacturers in other parts of the world, the result being that they cannot carry on, the whole of the fruit crop cannot be absorbed, and the growers are left with large quantities of perishable goods on hand, for which they cannot find a market. This belief is quite wrong. . . . With rebates for export, the price of sugar is 2½d. per lb.

"Nowhere in the world does the jam manufacturer get his sugar at less than the equivalent of 2½d. per lb., in Great Britain he has to pay 5d. per lb., and in the United States for export slightly under 2½d. per lb. It is, therefore, clear to everyone that the high cost of jam production in Australia is in no way due to the price the manufacturer has to pay for his sugar, etc."

Reply by Fruitgrowers.

The following reply was at once published in the Melbourne dailies:—

"We join issue with Mr. Bruce. He refers in general terms to a "depression in the fruit industry." Representing as he does such a large fruitgrowing constituency, the Treasurer might have been expected to be more specific.

The depression is in the canning and jam fruit section.

Had not sugar been controlled for the last seven years, the growers of canning and jam fruits would not have appealed to the Government for assistance.

In the canned fruit pool the growers of jam fruits have been excluded, and this section has indeed suffered severely for several years past.

The rebate of £20 per ton to which Mr. Bruce refers with such pride, was granted only last year—very tardily, we think, seeing that even then the war had ended three years previously.

Even with this rebate the price was materially above the world's parity, and manufacturers were not permitted to deal in the world's market because of the embargo.

Mr. Bruce's figures are seriously astray. America got her sugar for last year's fruit pack for 1½d. to 2d. per lb. for export, and 2½d. to 3d. per lb. for consumption in U.S. America. The position will be clearly seen by the following comparisons:—

Sugar Prices.

	For Local Consumption.	For Export.
Australia	£40 0 0	£26 0 0
U.S.A.	£23 to £27	£14 to £18

The rebate of one-sixth of the duty to which Mr. Bruce refers is on Empire-grown sugar entering the United Kingdom only, but this does not help us with the other markets in which we compete with America, including New Zealand, to

Journal for a number of years and desired to discontinue it on the ground that he had derived no benefit from its perusal."

We quite sympathize with this ex-subscriber. One gets a bit tired of continued propaganda.

Doubtless there are many others who think similarly to the one who wrote, as quoted above, just as the floating straw indicates the way the stream is flowing. But it wouldn't matter to the "Sugar Journal." Subscriptions in arrears (i.e., dissatisfied "subscribers" who don't subscribe) are of no concern to the "Sugar Journal." Copies, of course, could be sent "free" like they are sent to Members of Parliament for propaganda purposes, and "free" to fruitgrowers' organizations (as was done with the January issue) in a feeble attempt to discredit the "Fruit World."

£4,000 Spent on Propaganda.

The Australian Sugar Producers' As-

which country America is sending large quantities of canned goods.

But in mentioning export, Mr. Bruce has absolutely overlooked the effect of the high prices of sugar on local consumption.

Jam and canned fruits have been transferred to the "luxury" class. Sales of jam for the past two years have dwindled by about 60 per cent.

The relation of the sugar position to fruitgrowing can probably be better appreciated when we state that if the housewives and factories obtained their fruit for nothing and obtained a bonus gift of £10 per ton for every ton of fruit they handled, they would just about equal the pre-war position of cost.

In other words, in 1914 sugar cost £18 per ton, fruit an average price, say, of £12 per ton, or a total cost of £30 per ton. Even now, with the reduction, sugar costs £40 per ton for local consumption. When jams and preserved fruits, by reduced sugar costs, come out of the "luxury" class, much less will be heard about over-production of fruit, and the need of exporting such a large portion of our pack.

As regards the cost of sugar in England, how often must it be repeated that of the cost of 5½d., nearly 3d. is for revenue duty, and the English manufacturers get full rebate of the duty paid when such sugar is re-exported in jams, etc.

The bungling in connection with Government control of sugar has caused big losses in the fruit industry.

FOR THE AUSTRALIAN CONFERENCE OF FRUITGROWERS—

Yours, &c., R. E. Boardman.
Hon. Secretary.

Dec. 15.

The Sugar Positton.

Notes and Comments in reply to Sugar Propaganda.

We are quite aware that the sugar contract with the Commonwealth Government is supposed to expire June, 1923, but the statement appearing in the Australian Sugar "Journal" of January 12 last, that this contract excludes the cutting and delivery of any of this season's cane, is in direct opposition to what is popularly believed here.

We know that the cutting of this year's cane will have commenced before the end of June next, and the future will disclose how these early cuttings are disposed of.

The "Sugar Journal" has a lot to say about the crop of 1922 being about sufficient to meet the annual requirements of Australia, but we are informed that the carry-over at the beginning of the 1923 season will be somewhere between 80,000 and 100,000 tons.

Does the Sugar "Journal" wish us to believe that this carry-over, together with the new crop, will be sold in competition with the world's sugar, with the tariff imposed by Parliament?

In other words, will the price of sugar cease to be fictitiously raised by Government control and monopoly, and be sold at its true value, the same as obtains with every other commodity?

If this be so we will have nothing further to say against the sugar industry, which until recently has not evinced one particle of fair dealing or consideration for the fruit industry, one important section of which has narrowly escaped disaster.

Although Government control is expected to end next June, the sugar "Journal" must be aware that the Prime Minister has been asked to receive a deputation from Queensland whose avowed object is to get the duty on sugar that was increased 50 per cent. towards the end of last year, increased by another 50 per cent., to prohibit the importation of outside sugars, and to ask for a continuance of Government control and Government benevolence.

We think sugar control was the cause of the downfall of the Hughes administration and the Bruce-Page administration is not likely to escape the same fate, unless it takes its hands right off the article.

The speech of Mr. Bruce quoted by the "Journal" shows a lamentable ignorance of the facts. Manufacturers have repeatedly asked for permission to import foreign sugars for their foreign export trade in jams and canned fruits, and to pay the full duty, and to obtain a refund in the form of manufactured goods.

This would be merely following the pre-war practice and the practice that obtains in every other civilized country to-day.

This subject is referred to in another column.

Mr. Bruce should know that the export trade in jam is an infinitesimal proportion of the quantity manufactured in this country. Australian fruitgrowers rely chiefly upon Australian consumption for the absorption of their crops.

Every ton of fruit requires about a ton of sugar for jam conversion, and the price of sugar to-day is £39/18/-, as compared with the pre-war price of £18. The fruitgrower receives much less per ton than he did in pre-war days; the sugar "people" receive much more than double, and yet it is the "Sugar Journal" which has the "amazing effrontery" to try and argue the reverse of what actual figures prove.

CORRESPONDENCE.

Letter from Mr. C. V. Hives.

A letter is to hand dated January 2nd, from Mr. C. V. Hives, Australian Sugar Producers' Association, Brisbane, criticising one paragraph in an article in our November issue. He erroneously understands the "Fruit World" to believe that it is possible to cut the 1923 crop of cane before June, and, in consequence, writes caustically. Mr. Hives then explains the times for cutting and crushing cane, and continues:—

"The crop just harvested is somewhat below estimate, and barely sufficient for Australia's annual requirements. The prospects of the 1923 crop are at present below that of an average year."

We accept Mr. Hives' letter in good faith, but it was evidently written under

a grave misapprehension. There was a very general impression here, following the publication of a Ministerial pronouncement, that the 1923 crop of cane would be taken care of by the Federal Government—not simply the cane cut before June, but the whole of 1923 crop, which might last Australia till 1924 (summer), when the 1924-1925 (summer) fruit crop is dealt with. It appears now there was some misapprehension on this point. Mr. Hives must have read our article hurriedly, for he certainly jumped to wrong conclusions. It was not the matter of lack of knowledge on our part concerning cane cutting, etc. (which information is generally known amongst average citizens), but the interpretation of a ministerial statement.

The point emphasized then, and now, is the continuance of the embargo on importations. Mr. Hives noticed one paragraph in the article, but did he read the rest? Does he deny that the fruit industry (particularly the canning and fruit section) has suffered, and is still suffering, because of Government sugar control? Let him deal with this matter in a broadminded and generous manner, and he and others will recognize the equity of the principle of justice for all and not favors for a few.

MR. F. T. PULLAR'S VIEWS.

(The Editor "Fruit World.")

Sir,—The "Australian Sugar Journal" of January 12th states in a long article that the "Fruit World" misrepresents the sugar position as regards its effect on the fruit industry, or words to that effect.

Also the article is being forwarded to representative fruitgrowers by the secretary of the Sugar Producers' Association Ltd., with a covering letter suggesting that the article be read and discussed at fruitgrowers' association meetings.

It seems strange that the sugar growers are the only people, with the exception of an odd Apple grower, who do not realize the adverse effect the high price has on our fruit industry.

The Federal Government realized the damaging effect of the high cost of sugar on our industry and in consequence financed a fruit pool.

The State Governments were asked to join with Federal Government in financing the fruit pools, but I believe that with the exception of the Queensland Government, most of the other States refused, chiefly on the grounds that the present depression was partly caused by the Federal Government's control of sugar with the resultant decrease in consumption of fruit.

The Housewives' Association stated that owing to the high price of sugar a great number of their members were unable to make any quantity of jam, with the result that they were buyers of a lesser quantity of fruit.

The chief officer of the Colonial Sugar Co. Ltd. stated at a recent meeting of his company that the consumption of sugar within Australia, for some reason,

was decreasing, which statement backs up the statement of the Housewives' Association.

When fruitgrowers were appealing to the Federal Government a few months ago for relief in the way of financing another fruit pool, Mr. Palfreyman, of Messrs. Henry Jones & Co. Ltd., stated that this company would buy all the canning fruits in Australia at last year's pool prices, on condition that his company was allowed to import sugar. This statement was published in the Melbourne "Herald."

Notwithstanding these facts, the Sugar Producers' representative presumes to infer that the articles in the "Fruit World" "have probably done more to confuse and prejudice the fruitgrowers than any other factor. And this to their detriment."

If fruitgrowers did not have a paper such as the "Fruit World" to fight for the interests of their industry, they would soon have to go out of business.—Yours, &c.

FRANK T. PULLAR.

Fruitgrower, Ardmona, Victoria.

[Other correspondence on the sugar question is held over till our next issue.]

"PHENOMENAL PROGRESS OF THE SUGAR INDUSTRY."

In a political article prior to the last election the "Sugar Journal" Dec. 8 1922, (the organ of the Australian Sugar Producers' Association.) urged electors to vote Nationalist. It was Mr. Hughes and his Government, stated this article, that made possible the stability and phenomenal progress of their (the sugar) industry during the past two and a half years, and of which they enjoy the benefits for another six months. Not only so; but it was the Hughes Government which proposed a protective duty for sugar, higher than it has hitherto enjoyed. . . . The Federal Country Party is no friend of Queensland Sugar Producers. . . ."

RAILWAY SERVICES APPRECIATED.

(To the Editor Fruit World.)

Sir—Letters and articles have recently been appearing in the Press which give the public the impression that fruit consigned by rail does not carry satisfactorily. I would like to say from experience of over two seasons that by far the largest proportion of the fruit reaches its destination in good order and gives satisfaction. I feel that much harm is being done to the fruit industry by the letters and articles which give the Public to understand that they are running a risk in ordering fruit from the growers.

We want to encourage consumption of fruit in every way.

Yours faithfully,

J. F. Wynne

Diamond Creek,
Victoria, 27/1/23



Marketing Our Fruit.

The Supply is Steadily Overtaking the Demand.

Some Thoughtful Suggestions.

(By Jas. H. Lang, President Australian Conference of Fruitgrowers.)

years where only good commercial varieties suitable for the district are grown, and in these the production of inferior fruit can be reduced to a minimum, or in exceptional cases the whole of the crop may be first-grade. All, however, are not so happily situated.

Some Helpful Suggestions

WHAT, THEN, IS THE REMEDY?
Compulsory grading regulations have been tried in Victoria, but were rendered abortive by the resistance of a large section of the growers. This, then, does not meet the case, though simple regulations, sensibly administered, could do much in the way of reform.

As the buyer is being educated to demand a higher grade so the grower should be educated to supply it.

In all future plantings only varieties of proved commercial success in the district should be planted. Many varieties could, with advantage, be eliminated from the nurserymen's catalogue.

In existing orchards the best cultural methods should be practised to obtain a large proportion of first-grade fruit.

Fruit should be placed on the market well packed and graded, and in its most attractive form.

If only limited quantities of second-grade fruit be placed on the market, it will supply the demand for that quality without unduly affecting the price of the better article.

Many suggestions have been made for the utilization of waste and inferior fruit, but up to the present none of them have proved a commercial success. Herein lies a big field for investigation.

The foregoing applies only to fresh fruit for market trade.

Large quantities of fruit are now being grown, especially on the irrigation settlements, for jam and canning purposes. These growers have their own problems not the least of which is the price of sugar. This is one of the most important factors controlling the price paid for fruit by the preserving companies.

The high price of sugar during the last few years has also restricted the operations of the housewife, as during normal times large quantities of fruit are preserved in the home.

JAS. H. LANG.

UP TO THE PRESENT time the fruitgrower of Victoria, and, I believe, also of Australia, has been in a fortunate position, as with the exception of a few glutted markets, the demand for fruit has, on the whole, exceeded the supply and a ready sale has been found for all produced.

Larger areas have now been planted and are coming into bearing, the planting still continues and it behoves all fruitgrowers to improve existing markets and seek new ones for the profitable disposal of his fruit.

"Buyers Becoming Critical."

In all our existing markets the buyer is becoming more critical and the methods that served formerly will be found wanting before many more years have passed, and those growers who are unwilling to advance with the times will be left hopelessly in the rear.

The main factor for success in marketing is placing a high quality of fruit before the public. Unfortunately there is a large proportion of inferior fruit grown, and the disposal of this is our greatest marketing problem. To prohibit its sale would inflict a hardship on the grower, and also on a section of the public, who are unable to pay the price demanded for first-grade fruit.

The aim of every grower should be, by the best methods of orchard management, to produce as large a percentage of first-grade fruit as possible.

The proportion of inferior fruit is, however, sometimes rendered unduly large by causes that are beyond the control of the grower; among these may be mentioned a wet spring, rendering conditions favourable for fungoid diseases, and at the same time hampering spraying operations; or a dry summer in those districts where water for irrigation is limited.

Grafting Inferior Varieties.

In many of the older orchards there are inferior varieties of fruit trees, which the grower hesitates to cut down and graft with a chance of losing the tree, or at the best receiving no return for several years, considering the lower but sure return the better.

There are many orchards in various parts of the State that have been planted during the last twenty or thirty

Scientific Manuring Benefits Orchards and Vineyards.

Practical and Helpful Hints.

Republished from the Fruit World Annual and Trade Record 1922.

(Continued from our February issue, p. 51.)

IN OUR LAST ISSUE the necessity for adding manure to soil in the form of nitrogen, phosphoric acid, and potash, was demonstrated.

It is now proposed to give definite particulars regarding fertilizers for certain fruits.

For Stone Fruit.

Peaches, plums, apricots, etc., require rather liberal manuring. They show more readily want of nitrogen, and this ingredient should be applied in a soluble form, and it is also important that it should be applied early in the season. This is the reason why slow-acting nitrogenous manures do not yield such results, the nitrogen becoming available at a late stage of the crop, and the leaf-growth being increased at the expense of the fruit.

Mixtures of 3 parts superphosphate, 1 part sulph. ammonia, 1 part sulph. potash will be found to give excellent results. This should be applied at the rate of about 4 lbs. to the tree. For older trees use a larger amount of fertiliser.

Some long-continued and interesting experiments on the manuring of peach trees were carried out by the New Jersey U.S.A. Experiment Station. A fertiliser of the above composition was applied at the rate of 6 lb. to the tree for a period of ten years. The results were compared with those obtained on unmanured land and on land which had received a dressing of 20 tons of farm-yard manure to the acre.

The average yield during the ten years was three times that of the unmanured land, and very nearly equal to the yield obtained by the enormous dressing of 20 tons per acre of farm-yard manure.

Citrus Fruits.

The following have been found to be suitable mixtures for citrus fruits:—

For trees in full bearing up to 12 years old:—Per tree: 4 to 6 lb. superphosphate, 1 to 1½ lb. sulphate of ammonia, 1 to 1½ lbs. sulphate of potash. After reaching the bearing stage fertilise oranges and mandarins twice a year—early autumn and spring—giving half the total yearly allowance at each manuring. A tree 8 ft. in diameter should receive 4 lbs. of fertiliser at each dressing, and one 10 ft. in diameter 6 lbs. and so on. Where it is not convenient to give two applications, give the full quantity during the spring. February and March are the months when citrus trees make their greatest growth, hence our recommending the manuring during the early autumn months.

Lemons bearing practically all the year round should most certainly receive the two dressings and slightly heavier than the other citrus fruits.

Citrus fruits are surface rooters, and it is advisable during the hot summer months to mulch the very young trees with any litter that will tend to keep the surface cool and stop evaporation; old trees don't require it.

Chemical fertilisers are more to be recommended for these fruits as the continuous use of blood and bone and other highly organic fertilisers has been found to encourage armillaria, foot rot, and other root fungus diseases which have done great damage in citrus orchards.

Strawberries.

Get land ready about a week or two before planting, and fork in lightly a fair dressing of bone dust or blood and bone. When the plants are well established work in a light dose of soluble fertiliser, composed of 6 parts superphosphate, 2 parts sulph. ammonia, 3 parts sulph. potash. This will give an analysis of 9.5 per cent. water soluble phosphoric acid, 3.6 per cent. nitrogen, 14 per cent. potash. Sprinkle between the rows at rate of 3 cwt. to the acre just before scarifying. Do not disturb the soil after this till the plants have well rooted and begin to raise the crown of young leaves. It will well repay to give a third dressing at time of flowering. On well-established plots or second season of planting out, give a good dressing between drills during autumn, or late summer, and in the spring another at the time of flowering. Apply up to 6 cwt. per acre between the rows on well-established plots.

Grapes.

The best plan to fertilise grape vines is to sow down a crop of partridge pea or winter-growing pea about the month of May, and, before sowing this green crop at harrowing, give land a dressing of from 2 to 4 cwt. of fertiliser containing a good percentage of potash and phosphoric acid (no nitrogen), and before the spring—that is, before the buds begin to swell—plough this green litter under. It is better ploughed under when the pods are setting, and if at all dense in growth run roller over to crush down vines. It will then plough under better. If not putting down a green crop, manure in the early spring at the rate of 4 cwt. per acre with a mixture of 3 parts superphosphate, 1 part sulph. of ammonia and 1 part of sulphate of potash.

Passion Fruit

The following mixture will give splendid results:—2 parts sulph. ammonia, 4 parts superphosphate, 1 part sulph. potash. Manure up to 1 lb. per

vine if a two-year-old plant; if older, give up to 2 lbs., scattered well away from the roots, lightly harrowed or chipped in just before the plants begin to put on new growths for the season. If planting out young seedlings, apply quarter-pound to hole, well mixed into soil.

For Cherries.

Quantity per half-ton: Sulphate of ammonia, 2 cwt.; superphosphate, 5½ cwt.; sulphate of potash, 2½ cwt. Total, 10 cwt. This mixture contains: Nitrogen, 4 per cent.; phosphoric acid, 9.3 per cent. (water-soluble); potash, 13 per cent. Apply at the rate of 4 lb. per tree for young trees.

Lime on the Orchard.

The use of lime in agricultural practise is very old. In many soils it is an important factor, and, because of the large demand of most plants for it, its need is often felt very early.

The functions of lime, in its soil-modifying capacity, are as follows:—

(1) It corrects acidity. Most plants prefer slightly alkaline soils, but the exact preference of the apple is not known.

(2) It liberates other nutrients. The liberation should not be too fast, however, or losses may occur by leaching. This "whip" action has sometimes been considered the only function of lime.

(3) It tends to preserve nitrogen.

(4) It flocculates heavy soils.

(5) It has some fungicidal and insecticidal value.

It is often effective against snails.

(6) It corrects the toxic action of magnesium, and also of many other bases when they become present in injurious amounts.

Mr. C. G. Savage, manager of the Government Experimental Orchard at Berri (South Australia) writes re manuring vines:

The first application of manures in the irrigation areas is recommended just prior to the first irrigation. If the manure is sown in a furrow near the trees and another furrow slice thrown over it, the irrigation water directed along this furrow, the water will dissolve much of the manure and distribute it through the soil. The practise of applying fertilisers in two, instead of one, dressing is gaining favor in many areas. The first application is given during the winter or early spring to assist the plant when making new growth, and the second application is given as the first is developing its sugar contents. The second application also assists the plants in maturing the wood. Most of our soils are deficient in phosphoric acid and nitrogen along the Murray Valley, consequently fertilisers containing these consti-

tments should be applied. Potash in places also gives good returns.

Superphosphate and bone dust should be applied at the rate of 3 to 10 cwt. per acre, while sulphate of potash and sulphate of ammonia will give payable results when applied from 1 cwt. to 3 cwt. per acre.

IS BUD SELECTION NECESSARY?

(To the Editor, "Fruit World.")

Sir,—In the January number of the "Fruit World" Mr. Wicks stresses the necessity for bud selection, and several correspondents have also touched on this matter in the issue for the current month each affirming the advantages to be gained.

I may state that I have always held a similar opinion and when procuring buds and scions have, where possible, obtained them from trees of proved bearing habit, believing the same characteristic would be perpetuated.

It would appear, however, from tests begun in 1913 at Wisley, England, particulars of which are published in the "Journal of the Royal Horticultural Society," September, 1922, Vol. XLVII, Parts 2 and 3, that a bud from a tree of shy bearing habits is just as likely to produce a tree of heavy bearing habit as not; and vice versa, a bud from a tree of heavy bearing habit may develop into a pronounced shy bearing tree.

Included in the tests mentioned was one where 25 "Cox's Pomona" were worked on Crab stock with buds taken from what the writer calls "Good History Trees," and 25 on the same stock with buds from "Bad History Trees." In one year the resultant trees produced fruits ranging in number from 112 down to 4, with an average of 52 per tree on the "Good History Trees" and 230 down to 0 with an average of 54 per tree on the "Bad History Trees."

The writer states that undoubtedly methods of selection have played a very important part in the improvement of all kinds of plants, but such improvement almost always follows hybridization and seed selection, and to reason that a like result would follow bud selection is invalid. He affirms that provided the tree is healthy it will not matter how it behaved with regard to the actual fruits, for although several kinds of variation may be met with some of which, taking the form of bud sports, may be perpetuated when propagated vegetatively, the very great majority of variations (amongst which he includes bearing habit) exhibited among individual trees of the same variety are not transmissible.

The article referred to will, I have no doubt, interest your readers, but as the whole of the contents of the volume are copyright, it will be necessary for anyone who wishes to peruse same to obtain a copy. It would form a good subject for discussion at the next Pomological Committee meeting.

Geo. W. Wickens.

Officer-in-Charge W.A. Fruit Industry.

TASMANIA

Orchard Tax Insurance

(By Our Special Correspondent.)

Reduction in Freights Seasonable Notes

THE CLIMATIC CONDITIONS for the present season are proving about the most changeable on record. Very little summer weather has been experienced, and the cold has retarded the development of most fruits.

Fruit shipments to mainland markets and overseas are now in full swing. The latter, in spite of high freights, promises to be a record over previous seasons. The fruit, on the whole, is of excellent quality. Some of the earlier shipments were on the green side. It is a mistake to rush immature fruit on to the overseas markets.

Orchard Tax.—Meetings have now been held in the principal fruit districts of Tasmania in regard to this and other matters. It is pleasing to hear that a unanimous vote was recorded at all of these in favor of the imposition of a tax, or case levy, to provide funds to advance the industry. Growers are becoming tired of passing resolutions at meetings, which lapse because of the need of the wherewithal to put them into effect. A Bill is to be submitted to Parliament this coming session to provide legislation to meet the requests of the growers. This should prove a real forward move, will bring fruitgrowers together, and give them a voice, and provide some means for organization to meet the present-day competition on our various markets.

Overseas Shipments' Investigation Committee.—A Tasmanian committee has been formed to assist in the investigations that are to be made by the Cambridge scientists in regard to the condition known as "brown heart," that was so prevalent in last season's shipments. Sir H. Jones, Mr. J. P. Piggott, M.I.A., F. H. Wakefield, and the State Fruit Expert, Mr. P. H. Thomas, comprise the members of same. A meeting was held on February 9th to consider the report received from the Agent-General in regard to the personnel of those appointed and the general trend that the investigation would take.

Mr. F. H. Wakefield, the Tasmanian scientist, who is assisting the Tasmanian committee, outlined the details of the instrument he has manufactured to test the atmosphere and register the temperatures of the insulated chambers in the ship's holds, and gave some useful information in this respect. The Cambridge investigators are due to arrive in Tasmania at the end of February.

Reduction in Freights.—The reduction of freight on fruit shipped overseas by the Commonwealth Line of Steamers from 5/- to 4/- was hailed with satisfaction by growers. It appears, however, the Conference Lines, with the knowledge of the shortage of insulated space, are still willing to exploit the fruitgrower to the last penny, and consequently, nearly three-quarters of the

crop will carry the 5/- impost. It is to be hoped the fruitgrowers will remember the Commonwealth Line's action in this respect, and will loyally stand behind them in their future shipments.

[The Conference Line have now reduced the freight on Apples to 4/6 per bushel case.—Ed. "F. W."]

Beauty Point Shipments.—Northern Tasmanian growers should find an outlet for the bulk of their fruit shipped overseas this season, through this port. Six vessels are listed to load fruit from the Tamar this season. This is very satisfactory, and must be appreciated by those who have borne the brunt of arrangements now that the matter of overseas export from the Tamar is an accomplished fact.

It is a pity that the matter of shed expansion and passage of motor lorries over the wharf was not considered until the eleventh hour. In the case of the latter, the fruitgrower is being put to considerable inconvenience by the edict of the Marine Board prohibiting the carriage of loads (the net weight of which exceeds 4 tons) from going over the wharf.

Besides putting an extra charge on the carriage of the fruit, consequent on the double handling, more bruising will result.

Packing Classes.—These are being carried on in the various districts where tuition was given last season, and also several new classes have been commenced. Owing to the reduction that has been made to the Fruit Division of the Department of Agriculture, it has been necessary to hold the classes at longer intervals. This will lengthen the period of training. There is a dearth of competent packers in Tasmania, and realising the vital necessity of an efficient "pack" being exported, it is difficult to see the line of reasoning that is responsible for this so-called economy.

Insurance on Fruit Shipped Overseas.—At the meetings that have been held in the various fruit districts in regard to the necessity of an orchard tax, opportunity was taken to consult growers on the matter of insurance on fruit shipped overseas this season. The general opinion is that the whole matter has been on a wrong basis, and growers are now taking the matter into their own hands.

This season the bulk of the fruit will go home uninsured from deterioration, and only covered from losses through breakdown of machinery, etc. A penny levy is being deducted from each case exported to form a fund for defence purposes. This will be used in the case of shipments that have been damaged through neglect or wrongful carriage on the part of the shipping companies, to obtain compensation by legal means.

Dehydration.—A number of Apricot growers have jointly installed a dehy-

drator at Bridgewater for the purpose of drying Apricots, Prunes, vegetables, etc. The machine is of the design and type constructed by Mr. D. J. Latham. The Apricots that have been turned out are pronounced as being of excellent quality and a ready sale is being found for the fruit. The situation of the plant at Bridgewater allows for the utilization of hydro-electric power for running same and also gives both rail and water facilities for receiving and exporting the fruit.

Seasonable Notes.—Winter cover crops for purposes of green manuring should be sown during this month in order that they may become established before the winter frosts occur.

This is a form of enriching the soil with plant food, which is coming greatly into favor. In growing green crops for ploughing under it is advisable to sow alternately. The following are the amounts per acre of crops that are generally used for this purpose. These are varied or combined as suited to soil and climatic conditions:—

Peas.—Two bushels to the acre, with perhaps one bushel of Barley, Rye, or Oats.

Tarves.—One to one and a half bushels per acre, with one bushel of Barley, etc., added.

Rape.—About 20 lbs. per acre; Rye Grass (Italian), about 20 lbs. per acre.

Clovers.—15 to 20 lbs. per acre.

If Oats, Barley or Rye are used alone, sow 2 to 3 bushels per acre.

Export.—Packing and exporting fruit to both interstate and overseas markets will now be in full swing. Growers should be fully alive to the competition they will have to face on these markets and export only good quality fruit.

Woolly Aphis.—Where this is troublesome an autumn spray should be applied. Use either a commercial nicotine concentrate or the home-made mixture.

Budding may be carried out of Apples, Pears, Peaches, etc., as long as the sap is running freely. Select well-formed and developed buds from productive and healthy trees.

Inspect "ties" of buds that have been inserted earlier in the season, to see that they are not cutting into the bark. If this is the case, with strong-growing trees, they should be loosened to prevent damage.

Personal.—Mr. W. C. Page, who has been working in conjunction with the Packing Instructor (Mr. W. Rowlands) has been appointed to the position vacated. Mr. Page hails from the Huon, and is adept in the art of getting up fruit for market, besides possessing a good practical knowledge of the cultural side of the industry. He is at present engaged together, with the Fruit Expert (Mr. P. H. Thomas), in organizing packing classes in the various fruit districts.

Eating Dates.

Clipp: "I noticed in the paper the other day that a man was fined for eating fruit in a railway carriage."

Clapp: "Nonsense."

Clipp: "Fact. He chewed the date off his ticket, which was a week old."

Fruitgrowing under Irrigation.

Drying Vine Fruits :: London Layers or Clusters
Cultivation :: Cover Crops

(By our Special Correspondent.)

THE CURRANT CROP has ripened very unevenly, due doubtless to the many changes and cool spells experienced during January and early February. Sudden outbursts of heat have been experienced from time to time in the Murray Valley areas, but these have been of short duration followed by rapid falls in temperature. The *Sultana* berries are ripening rapidly and the sugar contents are increasing, the fruit will be ready to harvest towards the latter end of February. Growers on the whole like the must to read at least 13 degrees Baume before the harvesting operations commence. Now that so much of the pack must be exported every endeavour should be made to produce the richest dried product of a bright golden color.

One often thinks that many growers perhaps over dip the fruit, or, to be nearer the point, add too much caustic soda to the dip.

Only sufficient lye should be used to cause the skin around the stems of the berries to merely crack.

Do not over split the fruit, as much of the rich juice is allowed to escape and the fruit becomes sticky, is difficult to dry satisfactorily and exceedingly difficult to stem and grade.

Expose the fruit to sunlight to dry. This tends to brighten the color of the finished raisin. Should moist weather, or dewy nights be experienced the fruit must be protected; if the racks are not roofed, canvas or hessian sheets must be drawn over them.

The *Gordo* and *Waltham Cross* (White Malaga) vines are carrying good crops, the treatment of these fruits is similar to that of the *Sultana* with the exception of the strength of the dip. These fruits require a stronger dip than the *Sultana* and slightly larger cracks are looked for in the dipped fruit. The strength of the dip varies from 1 lb. caustic soda to 10 to 12 gallons of water according to the condition of the fruit.

LONDON LAYERS OR CLUSTERS.

ONE OFTEN WONDERS WHY more layers or clusters are not produced in the Commonwealth. Doubtless the necessity of selecting the suitable bunches, the slowness of drying, and the somewhat tedious method of handling, when compared with that of the *Lexia* explains the position.

In many stores, often in the irrigation areas, where the drying of raisins is carried on extensively, one sees imported table raisins on the shelves. Asked why? the storekeeper says, "I am unable to obtain locally grown layers."

With the low rate prevailing for export *lexias* more growers may be inclined to dry layers this season.

The *Muscat Gordo* *Blanco* and the *Waltham Cross* are the two most popular varieties used to produce the table raisin.

Only bunches containing large, well developed berries should be selected, and preferably the loose bunch. The thick, tightly packed fruit is difficult to dry, as the fruit is not previously dipped in caustic soda, but is placed directly on the tray from the picking tin or box and exposed in the sun.

The berries should be thoroughly ripe and contain the maximum of sugar, before being harvested; fruit low in sugar contents produces a sour dried product that will reflect upon the sale of the article.

The bunches when cut from the vines should always be handled by the stem, when placing in the picking tin, and when spreading upon the trays. This is a very desirable precaution to take, in order to retain as much bloom upon the fruit as possible.

The bunches are spread in a single layer on wooden trays and exposed to the sun. No further handling is necessary until the fruit is ready to sweat, except in the case of rain or dew, when the trays must be stacked and protected from the moisture. They should be laid out again as early as possible after the moisture has passed, in order to facilitate drying and to prevent the fruit moulding.

When sufficiently dry, the fruit is lifted from the trays by the stem, and placed in boxes to sweat or to even up the moisture contents of the berries. After a week to fortnight sweating, the fruit is ready to pack.

The most popular method of placing the fruit on the market is in 1 lb. cartons, but sometimes 7 lb. boxes or even larger containers are used. Prior to packing, the bunches need to be examined and any damaged berries that would detract from the appearance of the packed fruit are removed.

Merchants will often supply the necessary cartons in which to pack the fruit or the grower may place the fruit up under his own brand.

CULTIVATION.

AT THIS BUSY SEASON of the year cultivation is often neglected, this is a poor policy, as one has not only to care for this season's harvest but must also make provision for the next. In other words the trees and vines need every attention in order that the current season's growth will properly ripen as immature fruit wood will not carry heavy crops next season.

Cultivation Conserves Moisture.

Conservation of moisture in the soils along the Murray Valley is essential to keep the trees in good fettle, in order to produce thoroughly ripened woods and buds.

Consolidated soil loses more moisture by evaporation than does the well cultivated land, consequently one should scarify the soil, as soon after an irrigation as possible, provided of course that the land is in proper condition for working.

One hears many discussions as to the advisability of irrigating the land with water from the low river, should the salt content become relatively high. Should the irrigation water contain high percentages of injurious salts the water is better kept off the land and the scarifiers kept on. Conserve the greatest possible amount of soil moisture, thus doing away with the necessity of applying large quantities of water.

COVER CROPS.

EXPERIENCE GOES TO PROVE that the mid Murray Valley soils are deficient in organic matter and consequently nitrogen. In the absence of large quantities of stable manure these essential constituents of soils, may be replenished by the growing of leguminous crops on the land and plowing them in. Peas, vetches and tick beans are often used, the writer prefers the tick or horse bean because of the high nitrogen gathering power of the associated bacteria upon the roots of the plants. The plants also grow upright and are much easier plowed under than are the peas and vetches.

Green crops should be sown if possible during March in order to get a good growth on the plants prior to the winter's cold, also in order that the plants will be ready for turning under during late winter and early spring. The soil is then damp and decay sets in rapidly and the plants are well rotted before the summer cultivation commences.

BERRI IRRIGATION AREA.

Generally the crops of stone fruit are heavy, the Apricot crop is probably double that of last year, whilst the Peach crop is quite as heavy.

Owing to the heavy winds early in the season the Pear crop will be light.

The Vine Crops are good on the whole, and whilst growers report somewhat light crops of Sultanas, good crops will be harvested, as the seasonable conditions have been favourable for a good filling out of the berries.

Currants will be heavy, and the Gordo crop should yield heavier crops than last year.

Among the younger settlers there is an anxiety to pick their fruit before it reaches maturity, and already some Currants have been delivered to the packing houses.

Labour is plentiful, and as a rule a good class of man is available. Generally speaking the areas under cultivation by each grower does not warrant the employment of many men, the average holding is less than at Mildura.

Citrus Prospects.—Although it is too early to forecast the citrus crop, it is safe to say that generally the crop will be a light one. For some unaccountable reason the setting has been a light one, probably due to some general climatic condition, which not only has shortened the crop in this district, but the crop generally along the river is lighter than usual.

"A—A"

Berri, 20/2/23.

Cudlee Creek.

Mr. W. J. Hannaford, "Mount Bera," Cudlee Creek, South Australia writes in answer to an enquiry:—

During March growers have a busy time harvesting, and in dealing with cases and packing material for export and cool store also there is the local marketing of pears and apples.

Spraying.—Our opinion is that the extra strength of arsenate of lead is not necessary, as we consider that the secret of success lies in absolute thoroughness combined with sufficient spray to keep the fruit well covered.

Picking for Export.—Our experience has been that picking for size fruit, both for export and cool store has been most beneficial as the balance grows to size and the trees are benefited considerably enabling them to give more regular crops.

As the crop is light in our district, it is expected that the quantity shipped will be very small, probably not more than four or five thousand bushels.

Bud Selection.—Whilst we have not studied the question, we think there should certainly be more attention paid to bud selection.

New Cool Stores.—We are erecting a 12,000 case cool store and packing shed at Cudlee Creek, and intend enlarging to 20,000 as soon as possible. Two similar stores are being erected in the Gumeracha and Houghton Districts, a distance of about 5 miles from our centre.

What do we live for if not to make the world less difficult for each other?

Nurserymen and Seedsmen's Association of Victoria.

Important Matters Discussed.

A MEETING of the above Association was held at Melbourne on Wednesday, 31st January, 1923.

Present.—Messrs. G. W. Peart (President), J. Wright, B. Wright, J. Railton, R. Poulter, H. Poulter, J. W. Robinson, E. Wiseman, H. F. Gill, J. W. Lawrey, W. G. Gray, C. Nobelius, B. Hodgins.

Apologies were received from Messrs. Rimington and Brundrett.

Pyrus Usuriensis Seed from Japan.—Mr. C. Nobelius reported that these Pear seeds, which the Department of Agriculture had advised must be destroyed, had, on the efforts of the Association, been secured for him for planting. The seed was in fair order.

The President reported that delegates from the Association had waited on the Director of Federal Quarantine (Dr. Cumpston), and a full statement of reasons justifying the importation of these seeds was then presented. After a debate, in which Mr. Meeking, of the Department of Agriculture, took part, Dr. Cumpston agreed to the importation of the seeds.

The matter of Quarantine Station for imported plants was also dealt with; the Department was continuing its investigations.

A hearty vote of thanks was carried to the members of the deputation on their successful efforts.

Advertising Fruit.—The President drew attention to the propaganda being carried out by the Railway Department to increase the consumption of fruit. Decided, on motion of Messrs. Lawrey and Gray, to send a letter to the Commissioners, thanking them for their enterprise.

Apricot Varieties.—Mr. Lawrey introduced this discussion; he believed Trevatt to be a distinct variety; the President confirmed this. On carefully testing he had proved that the varieties known as "Blenheim," "Shipley," and "Shipley's Blenheim" were synonymous, but Trevatt was entirely distinct. It was a stronger grower than the other varieties named. At Leeton, N.S.W., one grower took 9½ tons off 90 seven-year-old Trevatt Apricot trees. The variety was early medium, excellent for canning and drying. The fruit was bigger and later than Blenheim. On the motion of Messrs. Lawrey and Gray it was unanimously decided:—

"That in the opinion of this Association Trevatt is a distinct variety from Blenheim (Shipley)."

Tuscan Cling Peach.—The President submitted specimens of Tuscan Cling, the earliest canning Peach; handsome colour, ripens middle of January, slight red colour at stone, which disappears at canning; good cropper. Exhibits were much admired.



Dried Fruit Department

The Drying of Prunes, Currants, Sultanas and Raisins.

By W. J. Allen and S. A. Hogg, N.S.W. Government Fruit Experts.

THE VARIETIES OF PRUNES chiefly grown in New South Wales are Prune d' Agen and Robe de Sergeant, but in some of the cooler districts Fellemborg and Silver prunes are grown to a limited extent. So far as the actual processing or drying is concerned the principle will be the same, with certain modifications which are governed by the texture of the fruit. For instance, the Silver prune has a very delicate texture and it only takes a very weak solution of caustic soda and boiling water to crack the skin; in fact the skin may be cracked by the use of boiling water alone, but this is not recommended, as the immersing process is a lengthy one unless a small proportion of caustic soda is used. The Fellemborg prune comes next in tenderness, followed by Robe de Sergeant and Prune d' Agen write Messrs. W. J. Allen and S. A. Hogg, Government Fruit Experts, in the N.S.W. "Journal of Agriculture."

The Harvesting of the Prunes.

There are three intervals in the ripening of prunes. The first prunes that ripen do not as a rule contain the same amount of sugar as those that ripen in the second and third stages. As prunes that are deficient in sugar (and this, after all, is the main preserving factor) are subject to mould and also to an incrustation of sugar on the surface, which is sometimes mistaken by consumers for mould to the depreciation of their value it is recommended that the prunes that ripen first be kept separate from the main crop and disposed of immediately they are ready for consumption. This first crop, or first ripening, invariably falls, if it is allowed to do so, and as a matter of practice it should be allowed to fall and should never be picked. A large percentage of the second crop or stage will also fall when sufficiently ripe, but as a rule the third crop or fruit of the third ripening stage will require to be picked, as they seem to adhere very tightly to the branches, even after they are fully ripe.

In all cases it is most important that the fruit should be allowed to attain its full percentage of sugar before drying, and all undeveloped fruit should be discarded. As the fruit is permitted to drop to the ground, precautions should be taken by the grower to see that the surface is loose and free from clods; in fact, the careful grower will take the precautions of raking around the base of the tree and outwards for a sufficient distance to catch any fruit that may drop from the spreading branches.

Dipping and Curing.

Having gathered the ripe fruit, a quantity of water is placed in a vessel of any convenient dimensions to a depth of not less than 18 inches. Caustic soda is then added to the water, and the whole brought to the boil. The percentage of caustic required for the desired purpose varies from 1lb. of caustic soda (Greenbank's 90 per cent.) in 12 galls. water, to 1lb. in 30 galls. The water should be kept boiling. The prunes should now be placed in a basket, which is constructed of fine wire-netting, and known as a dipping basket. It is not advisable to use tins, as it is found that the lower fruit gets an excess of solution, and cracks too much.

As it is impossible to state any fixed proportion for the solution, the correct strength can only be arrived at by testing. This should be done by placing a few typical prunes in the dipping basket, and immersing them for periods of from one to five seconds. It is preferable that the dipping should be as momentary as possible. If, therefore, it takes five seconds to bring about the desired amount of cracking, it would be better to add a little more caustic soda so as to reduce the period of immersion. If the solution is too strong it will split the fruit, which is most undesirable. If the solution is not strong enough it will have no effect on the exterior of the fruit, but if the solution is of the correct strength the fruit, after being exposed to the air for a few seconds, should show a network of minute cracks on the exterior.

Having arrived at the correct strength of the solution, it is preferable to immerse the fruit right to the bottom of the receptacle, then bring it to the surface and let it drain. The fruit should then be immediately placed on wooden trays or on the drying racks, upon which hessian or calico has been spread, and allowed to dry. Do not expose freshly-dipped fruit to the hot rays of the sun. If it is a very bright day the trays should be stacked, and, if the weather continues hot and bright, they should remain in stacks for three or four days before being exposed to the rays of the sun. The period of drying, of course, is influenced by the conditions of the weather.

It will be found that the smaller fruit will have dried sufficiently before the larger. The trays should therefore be looked over and fruit sufficiently dry should be removed. On no account

should the fruit be allowed to become hard. It should be removed from the trays when it feels tough but will not exude any juice when squeezed.

How Prunes are Stored.

When the bulk of the fruit is sufficiently dry it may be stored to a depth of two or three feet on a cement floor, care being taken to turn the fruit from time to time with a shovel, say every fortnight, so that it may mature and even up in texture. It may remain in this heap for one month or two months, but the fruit should be carefully watched to see that fermentation does not set in or mould appear.

An alternative method is to place the prunes in wheat bags that have previously been dipped in boiling water and exposed to the sun. The bags having been aerated and dried may be filled and sown up in a similar manner and may then be placed in stacks, but on no account to a greater depth than three bags; the pressure on the bottom one becomes excessive when four or five bags are placed on top.

With regard to turning the bags, it is really simpler than shovelling the loose prunes; the top bag is lifted off and the underside is turned uppermost on the floor; the middle bag is then lifted off and the bottom bag placed on the top of the bag first removed, and the middle bag is then placed on top of this. This operation should be carried out every fortnight or three weeks, according to the condition of the fruit.

The question is often raised, what is the correct time for the prunes to remain in the heap or in the bags?

This can only really be arrived at by experience. It will be found that after a month or five weeks the prunes will become very slightly fermented—that is to say, one will just be able to smell the effects of the fermentation in the room or bags, as the case may be. There is nothing to be alarmed at in this, unless it is accompanied by mould, for the slight fermentation is really part of the maturing process, and is speedily controlled by the presence of sugar in the prunes. It actually adds to the flavour of the fruit, and gives it an extra aroma.

Re-dipping and Drying.

THE next process is the re-dipping of the prunes in a saline bath prior to packing. To boiling water should be added sufficient salt to make its presence just detectable by

the taste. Prunes that are in bags can be dipped bag and all, providing the dipping vessel is of sufficient dimensions, but they must be allowed to cool overnight before re-drying, grading, and packing. If the prunes have been stacked in a heap, they may be dipped in a dipping basket. The time of immersion is again governed by the condition of the fruit; if it has become rather dry it requires from one to two seconds in the dipping basket, or from three to five seconds in the bags. Generally speaking, the second drying consists in exposing the fruit for a few hours, especially if it has been dipped in the dipping basket, but if it has been dipped in the bags a longer time must elapse before the fruit is sufficiently dry to pack. Prunes are packed in 28lb. boxes, which should be lined with clean, white paper. The cases are 18 inches x 9 inches x 4½ inches (inside measurements); they should be made of white pine, dressed on the outside.

It may be pointed out that prunes that are grown in the drier districts will keep better and remain free from sugaring for a much longer period in the district in which they are grown than in the city. It is, therefore, better if it can be arranged to hold the bulk and to supply the demand as required. There is really a double advantage in this; prunes invariably increase in price towards the end of the season, and if sufficient care is taken there should not be any appreciable loss; the other advantage is that a nice, fresh, bright article that appeals to the eye is presented to the consumer.

Drying Currants.

THE bunches of currants should not be picked until the fruit is perfectly ripe and attains its maximum amount of sugar. This is not always very easily determined, but if it is noticed on inspection that the berries have become a very dark colour covered with bloom and that a few will fall when the bunches are shaken it may generally be taken that they are ready for picking. The bunches should then be cut, placed on trays, hessian, or drying racks, as the case may be, and dried in the shade.

Sultanas.

When one is unacquainted with the handling of sultanas he is very easily misled as to whether the fruit has developed sufficient sugar or otherwise. This may be determined by squeezing some of the juice into a vessel and testing it with a hydrometer, which should register somewhere in the vicinity of 14 degrees Baume, or higher. If this test cannot be carried out the only other test is to leave the fruit on the vines until it is considered they are sufficiently ripe. Of course there is always a risk with the latter method, as wet weather may come at any time and split the fruit. The more sugar this fruit contains the heavier the

weight, and the better the dried article.

The fruit being picked, it should be immediately dipped in a hot solution of caustic soda and water of just sufficient strength to crack the outside of the fruit without splitting the skin, and with the minimum period of immersion. The water should be just off the boil, as a boiling solution has a tendency to toughen the berries. The fruit is placed on the drying racks or wooden trays immediately after dipping, and is dried in the shade.

Raisins.

The processing of raisins may be divided into two classes—pudding raisins and dessert raisins. The former are dipped, and the latter not dipped. In the production of lexias (dipped grapes) the fruit should be allowed to remain on the vine until it is perfectly ripe. The bunches should then be cut and immersed in a hot solution of caustic soda, carrying out the same instructions as those given above for sultanas, and the fruit may be similarly dried.

Dessert raisins, as mentioned, are not dipped. The bunches should be cut most carefully from the vine, great care being taken not to handle the berries or disturb the bloom. The fruit should be handled by the stalk, and generally laid on wooden trays. For the first week or so the fruit should not be exposed to the sun. At the end of a week the bunches should be turned over carefully. This may be done by placing an empty tray on top of the full one, and two men taking each one end invert the two trays. After remaining in this position for another week they may be exposed to the sun and finally dried.

Only the largest bunches and berries are used for this particular purpose, and although the process of drying is rather a lengthy one, taking from three weeks to a month, there is a fair demand for the product, at remunerative prices.

—N.S.W. "Agricultural Gazette."

THE A.D.F.A. GRADING OF DRIED FRUITS.

A Detailed Description of the Higher Crowns of the Chief Kinds of Fruit.

The official description of the higher crowns of the most important kinds of dried fruits—the standard by which the Murray River packing sheds will grade the growers' fruit this season—is as follows—

Apricots.—Fruit describable as "4 Crown" shall not pass through a sieve the circular meshes of which measure 1½ in. in diameter. They shall possess a uniformly good apricot color, and shall be free from blemishes.

Apricots.—Fruit describable as "3 Crown" shall not pass through a sieve the circular meshes of which measure 1½ in. in diameter. They shall possess a uniformly good apricot color, and shall be free from blemishes.

Peaches.—Fruit describable as "4 Crown" shall not pass through a sieve the circular meshes of which measure 2 in. in diameter, and shall be free from blemishes.

Peaches.—Fruit describable as "3 Crown" shall not pass through a sieve the circular meshes of which measure 1½ in. in diameter, and shall be free from blemishes.

Pears.—Fruit describable as "4 Crown" shall consist of cleanly cut halves of pear fruits that have been divided longitudinally. They shall be of large size for the variety, and shall possess good quality and texture, and a uniformly clear color.

Pears.—Fruit describable as "3 Crown" shall consist of cleanly cut halves of pear fruits that have been divided longitudinally. They shall be of fair average size for the variety, and shall possess good quality and uniformly clear color.

Currants.—Fruit describable as "3 Crown" shall consist of dark-colored, seedless fruit, free from shotty and pinhead specimens, and shall be fruit that still retains its natural bloom and lustre. They shall possess good texture and flavor. Red, unripe currants shall not exceed 10 per cent. of the total by count in any sample.

Currants.—Fruit describable as "2 Crown" shall consist of dark-colored, seedless fruit, of any texture, of good flavor, free from shotty and pinhead specimens. Red, unripe berries shall not exceed 25 per cent. by count in any sample.

Sultanas.—Fruit describable as "3 Crown" shall consist of bright-skinned fruit of any size, possessing a good amber color and high quality, good flavor, and a free, pliable texture. Deep brown berries shall not exceed 10 per cent. by count, and blackened or crushed fruit shall not be contained in any sample.

Sultanas.—Fruit describable as "2 Crown" shall consist of fruit of any size, possessing a good flavor and texture. The berries may be of any color natural to the fruit, but blackened and crushed fruits shall not be present in any sample.

Lexias and Elemes.—Fruit describable as 5 Crown" shall not pass through a sieve the circular meshes of which measure 17/32 of an inch. in diameter. They shall possess a firm, full texture, rich flavor, and a uniformly bright golden color; but clear, brown berries may be included, provided that they do not exceed 10 per cent. by count in any sample.

Lexias and Elemes.—Fruit describable as "4 Crown" shall not pass through a sieve the circular meshes of which measure 17/32 of an inch. in diameter. They shall possess a uniformly brown color, firm texture, and full, sweet flavor. Dark sound berries may be included, provided that they do not exceed 10 per cent. by count in any sample.

Regulations in regard to standards for lower grades are being prepared.

MILDURA CO-OPERATIVE FRUIT CO. LTD.

Annual Meeting.

The annual meeting of Shareholders of the above Company was held at Mildura on February, 10. Mr. A. L. Johnstone occupied the chair and presented the eighteenth annual report and balance sheet for the year ending November 30, 1922 which was adopted.

In presenting the report Mr. Johnstone stated that during the year the Company's paid up capital had increased from £30,116/15/- to £34,316/5/-. Shareholders had increased since 1915 from 404 to 652. The net profit for the year was £9,013/7/4/-. This plus the balance in last year's Appropriation Account, £501/18/3, made £9,515/5/7, available for dividend and bonus distribution.

This profit was made despite the loss of £9,000 on the box timber contract.

A dividend of 7 per cent. on the paid up capital, and distribution of such of the balance as will provide for a bonus of 25/- per ton on dried fruits packed during last season, was declared.

The Company's Progress:—In 1915 the paid up capital was £8,689/0/0; in 1922—£34,316. The net profits for 6 years total £38,801; dividends paid and profits distributed as bonuses total £11,075 and £27,199 respectively for the same period.

New Shed:—The Company have purchased 10 acres of land on which they propose to erect a new packing shed as soon as this season's stemming and packing is completed.

London selling arrangements:—The Company has decided to open its own office in London, and Mr. C. C. Farran, the late Manager of the Sydney office, has been selected to take charge of the London business. The general manager, Mr. A. S. Hopkins, is also visiting London in connection with the organization of this office. During his absence Mr. H. R. Sloan will act as general manager. Mr. J. L. Butcher of Merbein will take charge of the Sydney office.

Last year's pack of dried fruits was:—Currants, 1590 tons, Sultanas, 2753; Lexias, 831; Apricots 40; Peaches 60; Nectarines 2; Pears 30; Figs 7; Prunes 7; Clusters 30; Doradillos 259 tons. Total 5,611 tons. This has all been disposed of with the exception of a few tons of lexias, which it is hoped will be sold before the new lexias are available.

Doradillos. Last year some of these grapes were dried and exported, and although the prices realised will give a fair return to growers, the directors do not recommend a continuance of the drying of these grapes.

Grading regulations. With a view of securing the best possible results in markets overseas, the Commonwealth Government has materially stiffened up the grading regulations regarding

export fruit and the A.D.F.A. executives welcome this, as it is apparent that if we are to get the best return for our fruits strict attention must be paid to the quality of our pack. Growers, in their own interests, as well as in the interests of the industry generally, must do all in their power to see that the fruit delivered at the sheds is properly dried and cured.

Birdwood Shed. As forecasted last year, the capacity of this shed has been doubled, and, with the increased planting in the district, it will not be long before further additions will have to be made. We expect this shed to pack this season from 1,400 tons to 1,500 tons.

Curlwaa Shed. The fruit produced at Curlwaa is increasing and this year additions have been made to the shed to cope adequately with the increased tonnage that we expect to handle.

Soldier Settlers. I have previously voiced the desire of the directors for

J. G. Mumford

Est. 1906

Fruit Merchant

Fruit and Vegetables sold for growers from all States.

Account sales posted daily.

Exporter.

Exporter of fruit to English and Continental markets.

449-451 Flinders Lane,
Fruit Exchange, Melb.

Reference: Satisfactory growers in all states.

the success of the boys in this district, and I am pleased to tell you that the great majority of them are "getting round the corner," and, if the good crops showing this year are successfully harvested, we shall have no cause to regret having given them financial assistance.

The Future. With the settling down of the market of the world it is only to be expected that the high values of dried fruits in common with other commodities, will not be maintained. Already there are indications that much lower values in all classes of fruits must be looked for, providing that there is normal production in other fruit-producing countries of the world.

With these possibilities and probabilities before us we cannot too strongly urge growers to cultivate your land and so intelligently and generously to apply suitable fertilisers as will ensure maximum crops. Herein lies your best chance to success.

The three retiring directors Messrs. A. L. Johnstone, H. E. Sloan and George Hudson, were re-elected.

BRANDING FRUIT CASES FOR EXPORT.

Importers' Numbers Altered.

On page 51 of our last edition we published the registered shipping numbers allotted to British importers of Australian fruit for marking on both ends of export cases. These have been altered and are now as follows:—

London.—Yeoward Bros., 320 to 323; Geo. Monro Ltd., 325; Overseas Farmers' Co-operative Federations, 327 to 341; Keeling & Hunt, 342; G. Da Costa, 344 to 348; Isaacs Bros., 349; The Dominion Producers' Agency Ltd., 350-355; S. Larkinson Ltd., 359; J. Bradnum, 367; Notherd, Lowe & Wills Ltd., 370 to 379; Dalgety & Co., 380 to 382; F. W. Moore and Co. Ltd., 383 to 394; D. D. Pankhurst, 395; T. J. Poupart Ltd., 397; Geo. Tabor Ltd., 401 to 402; Ridley and Houlding, 403; Garcia & Co. Ltd., 412; E. A. O'Kelly & Co., 414; Dan Wuille and Co. Ltd., 415 to 417; E. Jacobs and Son, 418; W. D. Peacock & Co., 419 to 428; Fruit & Produce Exchange, 430; Margetson & Co. Ltd., 431 to 432; F. C. Bradley & Son, 433; W. Dennis & Sons, 434 to 439; E. H. Lewis & Son Ltd., 448 to 450; C. A. & H. Nichols, 451; M. & W. Mack, 452; The Dominion Products Co. Ltd., 453 to 463; J. O. Sims, 464; T. Walton (London) Ltd., 465 to 466; J. O. Sims, 467; F. Humphrey Frost & Co., 468.

Liverpool.—J. Johnson, 326; Woodall and Co., 360; J. Adam, Son & Co., 361; J. C. Houghton & Co., 404 to 409; McGeorge & Jardine, 411; L. Connolly and Co., 413; Glover, Hill & Co., 440 to 442.

Glasgow.—T. Allan & Co. Ltd., 324; Thomson & Mathieson Ltd., 343; Simons and Co. Ltd., 356 to 358; L. & H. Williams & Co., 429.

Hull.—Jefferson & Gosling, 362 to 365; B. & J. Shaw, 400; White & Son Ltd., 410; Humber Fruit Brokers Ltd., 443.

Manchester.—J. & H. Goodwin Ltd., 447.

Southampton.—Simons (Southampton) Ltd., 444 to 446.

SEND FRUIT TO FRIENDS IN ENGLAND.

Seeing that there are so many thousands of people in Australia who have relatives and personal friends in England, a suggestion has been made that the opportunity should be provided for the people here to send fruit direct to their friends in the old country.

For example, the announcement should be published stating exactly how much it would cost to deliver a case or box of fruit, fresh, canned, or dried to any address in the United Kingdom.

On the sum necessary being lodged with the responsible people here, arrangements to be made for delivery from stocks in London.

This would prove of convenience and value to consignor and consignee, would assist in the disposal of fruit and would be a good advertisement for Australian goods.

New South Wales

Murrumbidgee Irrigation Areas.

(By Our Correspondent.)

The Leeton canning factory is now dealing with the Clingstone Peach crop, under the Federal pool. Two hundred and fifty tons, fresh, of Elberta (Slipstones) have already been canned for the pool, while a further 200 tons were processed by the factory for and on behalf of the settlers, as the pool refused to accept this further surplus.

It is expected that about 1,600 tons of Clingstones will be processed, equivalent to about 1,900,000 tins of fruit.

Drying.—A large quantity of Elberta Peaches have also been dried upon the individual farms in Griffith and Leeton, in addition to those handled by the M.I.A. Co-operative Co. Ltd. in Leeton, and by the Fresh Fruit and Ice Co. Ltd. in Griffith. It is estimated that about 50 tons (dried weight) will pass through the Griffith Producers' Co-op. Co. Ltd. on behalf of individual settlers in and around Griffith.

Penfold's Wines Ltd., and McWilliams and Sons.—The two wineries on the M.I.A. are expected to begin processing within the ensuing month. The wine Grapes are, generally speaking, well over 10 Beaume already, and if the present weather holds should reach the requisite 15 Beaume in a short while. The vigneron have learned by experience the correct method and times for irrigating their Grape crops, and although this has the effect of slightly retarding their ripening to the specified sugar content, yet the ultimate result is beneficial both to the grower and to the wine factories, in increase of weight and quality of the processed wines.

The Agricultural Show at Leeton was held on February 14th and 15th. The most interesting exhibit was the collection of bottled fruits and preserves which will be included in the district exhibit at the Royal Sydney Agricultural Show.

The Griffith Agricultural Show will be held on the 28th February and 1st March.

Griffith, 20/2/23.

NEW SOUTH WALES' FRUIT-GROWERS' ASSOCIATION.

A meeting of Executive of the above Association was held on February 2nd. The president (Mr. J. Heane) occupied the chair, and there were also present Messrs. King (Lower Portland), Blowes (Orange), Taylor (Orangeville), Wark and Ray (Bathurst), McMahon (Kurrajong), and Nicolson (Glenorie).

The president and secretary reported that the district associations had responded well to the request for funds to carry on the Central Association. The pool buying turnover for the past month had also increased considerably, and the prospects for the future were much brighter. Suggestions for allowing district secretaries a bonus or commission on new members were referred to the annual conference.

Branding Export Cases.—It was decided to approve of the proposal to place the London agents' number on both ends of cases.

Citrus Packing Sheds.—Approval was expressed of the proposals to form a Central Citrus Association of N.S.W., and go into the matter of the erection of district packing sheds.

Annual Conference.—A number of matters were referred to the annual conference which is to be held at Goulburn from May 29th to June 1st. The Minister for Agriculture is to be asked to open the conference.

Railway Matters.—A deputation waited on the Railway Department and pointed out that under the present rates new cases were carried at a higher rate than second-hand cases. The official interviewed admitted that this was an anomaly and had promised to see what could be done to remedy it. The Railways were also requested to go into the matter of supplying more louver trucks.

H. M. WADE & Co. FRUIT MERCHANTS

Prompt advices of sales
Cheques Weekly

435 FLINDERS LANE
MELBOURNE

Corner of William Street.
Opposite Western Market

Cold Storage Experiments.—The secretary read the report of experiments recently carried out by the Government. The report was considered by members to be very unsatisfactory. Two hundred and forty cases had been sent in, but only 60 were reported upon. The only thing proved by the experiment was that tissue paper was the best to wrap fruit in. It was decided to request the Government to make a full report available.

Citrus Canker.—It was decided to reaffirm the request to the Commonwealth Government for the total prohibition of the importation of citrus fruits into Australia, in view of the danger of introducing citrus canker.

Fumigation of Orchards.—The Murrumbidgee Irrigation Area Co-op. Co. wrote stating that they proposed to erect fifty fumigation tents on the area, and would like to have information from growers who had experience in this matter. Mr. F. A. Nicolson undertook to forward a report. Mr. B. King stated that many growers in his district had discarded fumigation tents in favor of spraying oil and soda.

CURLWAA IRRIGATION AREA.

During the last six months of 1922, the rainfall was below the average, aggregating only 410 points, the greatest precipitation on any one day being 58 points. This was of very little use to the horticulturist, and full use has accordingly been made of the irrigation plant. The absence of useful rains on the watershed of the Murray River has resulted in a period of low river. On the 1st July last, the gauge reading was 4 ft. 8 in., gradually rising towards the end of September, when the reading was 14 ft. 2 in., the maximum height for the year. The river has since gradually fallen, and on the last day of the year the reading was only 2 ft. 7 in., with a tendency to still lower readings.

Additional pumping plant has recently been provided and irrigation is now carried out without intermission, and in much less time than previously, notwithstanding that the area to be watered has steadily increased. A factor contributing to the expeditious supply and minimising of water losses is the increased length of channels which are lined with concrete from year to year. The effect of this is very marked, and as the lining is extended, will become more so, and result in eliminating much of the laborious and expensive work of clearing the channels of weeds.

All the blocks in the recent extension of the area have been allotted and already most of these have been cleared and are planted or partly planted, and houses erected.

The only remaining land on the settlement suitable for irrigation is an area of about 520 acres, which has been sub-divided into 23 blocks, and will be made available for application as soon as channels, tenders for which have been invited, are completed.

The main work of building levees to protect the settlement from the effect of river floods has been completed, and contracts have now been let for the supplementary portions which will finish the whole scheme.

The past season was marked by excellent growth in the orchards and vineyards, but there was a marked falling off in production, chiefly in deciduous fruits. Apricots and Peaches were of good quality, but the setting was exceptionally light. Added to this prices for dried fruit products were somewhat lower.

Statistics of production and development for the year ended 30th June, 1922, are as follows:—

Value of Production.

Dried fruits of all kinds . . .	£35,075
Fresh fruits of all kinds . . .	11,840
Crops, live stock, honey, home consumption . . .	5,281
	£52,196

Area Occupied.

Irrigable lands . . .	1,775 acres
Dry lands . . .	7,710
Area planted . . .	1,020
Area in bearing . . .	809

QUEENSLAND

Current News and Notes

Cultural Items

(By Our Correspondent.)

CONTRARY to earlier anticipations, many of the fruit districts are experiencing a rather severe drought; citrus and Bananas are already showing the effect of its influence, and the quality of a rather high percentage of Pineapples seen on local markets is impaired by the same cause.

Deciduous fruits from Stanthorpe district unfortunately still retain their reputation for fruit fly. Though the growers are unanimous in recognition of the necessity for collective effort in dealing with the pest, and are doing their best to minimise its presence, it is not reasonable to suppose that control can be effected by local efforts.

That as the season advances the pest is very materially reduced is recognised, but the reason for it has not been satisfactorily explained.

As the fly reputedly does not winter in Stanthorpe area (and certainly if it does but to a very limited extent), it is suggested that the more congenial coastal areas provide the early season supply for infecting the whole Southern area.

During early summer, coastal Peaches, etc., are infested to an excessive extent, and the supply of fruit for perpetuation is well maintained until after the Mango season in February.

Endeavors to maintain any particular area free from this indigenous pest (other than possibly by a repellent spray), will surely be unavailing whilst it is allowed to multiply unrestrictedly in others. A general clean up is needed to have any reasonable prospect of general benefit.

Bunchy Top in Bananas.—The anticipation based upon Mr. Marks' reported cure for "bunchy top" in Bananas have not been realized, and the amount of levies collected toward meeting the financial reward are being returned to contributors. Mr. Marks is pursuing further experiments and it is hoped that his enthusiasm may result satisfactorily.

Between "bunchy top" in the South, rust mites in several districts, and beetle borer general, the lot of the Banana grower is unenviable. Mr. Munro Hull, of Eumundee, claims to have discovered an applicable remedy for the borer, in connection with which arrangements are being made for investigation.

Consequent upon the absence of rainfall, culture operations are out of routine, working the land to retain as much of the moisture as possible is the principal feature.

In dealing with pests, spraying against scale insects with oil emulsions is likely to be more harmful (under dry conditions) than the scale.

Cyaniding is at present much preferable, and, as applied to small trees, is easily managed.

In some districts natural insect ene-

mies, and in others parasitic fungi, play a very important part in keeping down scale insects, and it is suggested that this aspect may well receive the attention of entomologists.

In dealing with spraying materials, available in local markets, recommendations have from time to time been made to the Agricultural Department regarding efficiency and general adaptability being thoroughly tested by its officers, but so far results upon this or allied subjects appear to be confined to the office instead of the field.

Stanthorpe Show.

The forty-sixth annual show of the Stanthorpe Agricultural Society was held at Stanthorpe, Queensland, on February 9th. His Excellency the Governor

trict had been visited by a severe hail-storm, and a long spell of dry weather had been experienced. The committee, exhibitors, and all who contributed to the success of the show are to be congratulated on their excellent effort.

THE AVOCADO.

Should be Grown Commercially in Queensland.

Big Possibilities for Fruitgrowers.

The Avocado Pears, the fruit of *Persea gratissima*, is not commercially grown in Australia at the present time, nevertheless, it can be safely assumed that it will become a commercial crop when its many qualities are known.

The fruit has a very high food value, furnishing up to 30 per cent. of vegetable fat, and has rich mineral and protein matter. It ranks with milk and eggs, and is equal to lean meat, and has the medicinal qualities of a soothing laxative.

The flesh of the Avocado has a rich nutty flavour, and a buttery texture—a taste which is not often thoroughly



45 Year Old Orange Tree at E. J. Stafford's Globe Orangery, Howard, Queensland.

(Sir Matthew Nathan) opened the show in the presence of a large gathering.

The main attraction was the splendid display of fruit and vegetables. The Department of Agriculture exhibited entomological specimens illustrating the life histories of insects affecting fruit-growers and others. This exhibit was found useful, and appreciation was also expressed of the Government exhibit illustrating the art of grading and packing various fruits. A feature of special interest was the district exhibit competition; the first prize was won by the Amiens district, Bapaume district being second. These displays were really excellent; other districts competing include Cottonvale, Poizieres, Ballandean, Thulimbah and Dalcouth.

In all respects the show was very creditable, despite the fact that the dis-

appreciated at first—but the liking grows with further acquaintance when its true value is realized.

Cultivation.

In Queensland the experimental cultivation of the Avocado has proved most successful. During 1918 the Queensland Acclimatization Society introduced from California a representative collection. They have produced periodical crops of fruit, and have made vigorous growth; they prove to be gross feeders and respond to thorough cultivation, and appreciate moisture. Planting should be about 25 feet apart each way. Little attention is given to pruning only in the formation of a good framework in its early stages, subsequently slight thinning only is necessary, as most varieties are fairly symmetrical in habit.

Propagation.

Propagation is almost universally carried out by shield budding; experience gained in Queensland suggests the operation is not simple, the stock must be in a very vigorous condition, with the sap flowing freely, and no check of growth allowed until the bud has well developed.

The question of suitable stocks is in a comparatively experimental stage, but the Mexican and Guatemalan are more hardy than the West Indian, and will defer spring growth somewhat, thereby limiting the danger of frost.

London and North Eastern Railway

The North and Midland Counties of England are directly served by

THE PORT OF HULL

Every modern facility for prompt handling of fruit.

Docks and quays provide for quick discharge of cargoes.

Sales held daily during the season.

Express train service to all parts of England.

Australian Apples Sold at Hull in previous seasons brought the highest prices.

For further particulars apply to

E. BECHERVAISE

Representative in Australia

51 Moorabool Street
Geelong, Victoria

Types.

There are three races of Avocados—the West Indian, Mexican, and Guatemalan. The first-named produce some of the finest fruit, with thin skins, but is very susceptible to frost. The Mexican is very hardy, but the fruit has a very thin skin, and is of small size. The Guatemalan has a tough skin, and many varieties are very fine.

It will be seen that Avocadoes can be conveniently divided into two groups—thick and thin skinned varieties—the thick skinned varieties are best adapted for commercial planting, owing to their large size and shipping qualities. The thin skinned are generally

more handy and can be grown over a comparatively wide area.

Commercial Possibilities.

The commercial possibilities of the Avocado offer great inducements to the orchardist in suitable semi-tropical localities in the near future, and when the fruit is generally known, there should always be a good demand for prime fruit, which is an absolute food.

Reginald W. Peters,
Assistant-Instructor in Fruit Culture.
Dept. of Agriculture,
Brisbane.

Dawson Valley Irrigation Scheme.

Mr. O. E. Halliday, who for the past five years has been Assistant Manager of the Government Experimental Farm Berri, River Murray, South Australia, has resigned from that position to accept the position of Manager of the Experiment Farm at Dawson Valley, Queensland, where a huge irrigation project is being opened out.

In the Dawson Valley Scheme there are 200,000 acres to be opened out for the growing of cotton and other products. 6,000 acres will be devoted to fruitgrowing, including soft fruits, citrus and vines. The experimental Farm which Mr. Halliday is to manage contains 200 acres.

The Dawson Valley is reached by taking the train from Rockhampton to Baralaba, and then driving an additional 30 miles.

The work is proceeding of constructing a huge dam across the Dawson River which will supply sufficient water by gravitation for the whole irrigation project.

Gympie.

The Gympie district, which for so many years was one of the largest gold producing centres of Queensland, has now developed largely in primary production. Splendid opportunities are offered to the willing and energetic settler with limited capital, to acquire land suitable for dairying, agriculture, fruitgrowing, sugar cane and cotton growing, and other primary industries. Statistics furnished by the Gympie and District Progress Association show the following for the month of October, 1922:—

Butter manufactured, 332,048 lbs. for which suppliers were paid	\$25,981
Timber, 3,460,916 s.ft., valued at	17,977
Fruit	17,077
Agricultural produce	8,614
Gold, 1,360 ozs., valued at ..	4,627
Pigs, 1,150, realised	2,229
Lime and manganese ore	361

Total value of products approximately

COTTON ON THE MURRAY RIVER.

In addition to areas of Cotton that are being put in by private individuals and the Cotton Growers' Association, the Horticultural Branch of the South Australian Department of Agriculture has this season sown an area at the Government Experimental Orchard, Berri (S.A.). The sowing consists of a few rows of each of 11 varieties, namely:—Cocker's Lightning Express, Delta type, Durango, Acala, Pima, Sakalrides, Brown No. 4, Hartsville No. 12, Sunbeam Long Staple, Allan's Improved Long Staple, and Webber 49. Of these

TASMANIA

We are the Leading Australian

Fruit Exporters

Fruit Canners

Jam Manufacturers
(I.X.L. Brand)

Hop Factors

(Owning the largest cool stores for this purpose in Australia)

We stock large supplies of Corrugated Strawboard, the latest and best material for packing apples for export; Woodwool, etc., etc.

Tasmanian Agents for Commonwealth Government Line of steamers, Federal and Shire Lines, etc.

H. Jones & Co. Ltd.

Old Wharf, Hobart

FRUIT SHIPMENTS LONDON

Liverpool and the Continent

W. D. PEACOCK & CO.

24 Martin Lane, Cannon St.

LONDON, E.C., 4

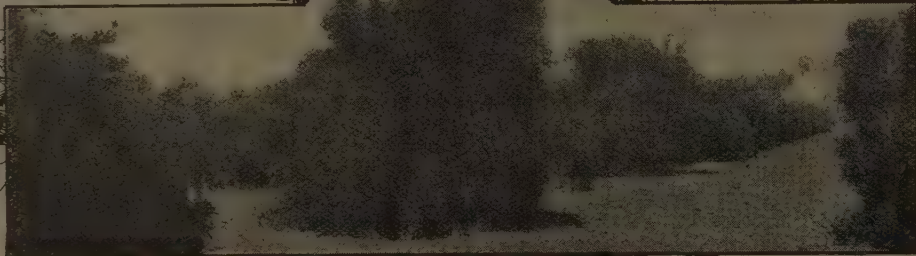
AND HOBART, TASMANIA

Solicit Consignments.

The High Standing and Long Experience of this Firm is a Guarantee that the Best Interests of Consignors will be conserved.

varieties the first-named four were not grown at the Berri Orchard last year. They have been planted along with the others with the object of securing information as to the comparative ripening periods, as well as the quality of the staple. It is understood that the four varieties referred to, and particularly Cocker's Lightning Express and Durango, are rapid maturing kinds, being ready to harvest within five months of the time of planting. If this should prove to be the case here, it will be of considerable interest from the river point of view, because it will enable the Cotton harvest to be completed before the pruning and winter cultivation of deciduous trees and vines are undertaken, or the citrus harvest is in full swing.

THE AUSTRALIAN CITRUS GROWER



ANNUAL REPORT CALIFORNIA FRUITGROWERS' EXCHANGE, 1921-22.

£98,200,000 handled for growers in 19 years.

Growers and Traders work in harmony.

By Earl G. Dezell, General Manager.

THE annual report for 1921-22 of the California Fruitgrowers' Exchange, written by the general manager, Mr. Earl G. Dezell, makes instructive reading. The report is published in full in the "California Citigraph" of December, 1922.

Appreciative reference is made to the magnificent services to the Exchange and to the nation of the late Mr. G. Harold Powell.

After describing the effects of the disastrous frost in January, 1922, and how, after invoking the aid of the law to prevent worthless fruit being despatched, the confidence of the public was restored, the report continues:—

The Oranges shipped through the Exchange, which equalled in volume only 53 per cent. of the preceding season's shipments, brought approximately 90 per cent. of the receipts of that season for the fruit on the tree.

The successful handling of emergencies of this kind is possible, only because a large percentage of the producers are working together through one organization, have studied the distribution of their fruit from the tree to the consumers, and realize the necessity of preserving the confidence of the trade and consumers in their products to enable them to profitably market their constantly increasing crops. The benefits accruing from the existence and operation of the California Fruitgrowers' Exchange, which has had for many years the greater part of the citrus fruit crop of the State under its orderly distribution, and the responsibility for the general results are such that all growers are urged to carefully consider the advantages to themselves and their neighbours of supporting the organization, thus lending their influence in safeguarding and promoting the interests of the industry and contributing toward the development work being done by the Exchange for the benefit of all.

Shipments and Returns.

The total shipments of Oranges and Grape fruit from California, as reported by the railroads for the year ended Oct. 31, 1922, were 29,573 carloads, and of Lemons, 9,926 carloads, or a total of 39,499 carloads. The members of the Exchange shipped during the same period 18,581 cars of Oranges and Grape fruit, and 8,557 cars of Lemons, making an aggregate of 27,138 cars, or 68.7 per cent. of the citrus fruit shipments from the State.

Exchange shipments for the past season, expressed in terms of boxes, were 7,953,041½ boxes of Oranges, 169,358 boxes of Grape fruit, and 3,495,117½ boxes of Lemons.

The returns for Exchange shipments, f.o.b. cars California, for the year ended Oct. 31, 1922, were £9,730,000, the delivered value in the markets being £13,074,000. For the season's citrus crop, based on Exchange results, California received £14,274,000, the delivered value being £19,199,000, which includes £4,926,000 for freight and refrigeration. The losses through bad debts amounted to 1-100 of 1 per cent.

The returns to California through the Exchange during the last 19 years have amounted to approximately £98,200,000.

Cost of Exchange Service.

By collective effort the citrus growers of California have, through the Exchange, provided themselves with comprehensive and efficient service at a minimum of cost. This service includes the maintenance of various departments in California which furnish Exchange members authentic and up-to-date information and advice with them concerning their common problems, and the maintenance of an exclusive salaried sales force covering all markets of the United States and Canada.

Its market news service gives daily information to the members of conditions in all markets, of the supply of Exchange shippers' fruit en route and on track, as well as of Exchange holdings, for guidance in the equitable distribution and sale of their crops.

The organization consummates the sales under the instruction of the shippers, collects the money for the fruit and transmits it directly to the shipper;

it handles all claims, develops new markets, works with the wholesale and retail trade in developing the best methods of merchandising, conducts a national campaign of advertising to promote new uses and increase the consumption of citrus fruits, assists shippers in their handling and grading problems and in their membership work, maintains a research laboratory for the development of by-products, assists in control of insect pests in the orchards, and, through the California Citrus League, partakes in the handling of freight rate, tariff and other questions not connected with marketing which effect the industry generally.

Exclusive of advertising, the entire service of the central Exchange cost an average of 7.7 cents per box for the year ended Oct. 31, 1922.

The average cost of the service rendered by the District Exchanges during the same period was 1.8 cents per box, making the total average operating cost 9.5 cents per box, or 1.69 per cent. of the delivered value of the fruit and 2.27 per cent. of the f.o.b. returns.

The prevailing high prices on both California and Florida Oranges attracted to the United States increased importations from Italy, Spain, Brazil, Australia, South Africa, Costa Rica and Honduras.

Prospects for 1922-23.

The cold weather of January, 1922, damaged the tender fruit wood on Orange trees quite seriously in some sections and this will be reflected in the crop for next season. The preliminary estimates of Exchange shippers for the season 1922-23 indicate a production of about 75 per cent. of a normal crop. It is expected that the trees will have fully recovered by the following year.

The Lemon Crop.

The importers of Italian Lemons apparently over-estimated the damage by frost to the California crop. Large quantities of Lemons were imported, the total for the 12 months beginning Nov. 1, 1921, equalling 3,372 carloads. This was 62 per cent. in excess of last year's receipts of foreign Lemons and 23 per cent. above the average of the past four years.

California despatched 9,026 cars of Lemons, as reported by the railroads, during the year ended Oct. 31, compared with 11,805 cars the preceding year and an average of 9,021 cars per year for the last five years.

The total supply of Lemons this year, including importations, amounted to approximately 13,000 carloads, which is only slightly below that of the past two years.

The report then deals with the activities of the field department, and growers' service bureau, researches in insect pest control, the tariff, export, freight reduction, laboratory research work.

Claims.—During the year 16,609 claims were collected, aggregating £68,375.

Advertising Department.

Sunkist advertising is definitely successful in the marketing of each season's crop, and, in addition to its effect on immediate sales, steadily builds up consumer demand and a trade friendliness for Oranges and Lemons in general, and particularly for the Sunkist brand.

The first purpose of Sunkist advertising is to increase the total use of Oranges and Lemons, and the second to create and increase the consumer and trade preference for California citrus fruits, particularly the Sunkist brand. The third objective is to extend markets and promote reasonable margins, good displays and sound merchandising methods with the trade.

In revising the season's advertising plan on a short crop basis to keep the expenditure within the appropriation of $3\frac{1}{2}$ ¢ per box on Oranges and 6¢ per box on Lemons, the educational features of Sunkist advertising were kept predominant. Emphasis was placed on the health value of citrus fruits, the place of these wholesome fruits in the well-balanced diet and especially the necessity for Orange juice in infant feeding.

The public is particularly attentive now to sound information regarding diet and nutrition generally. A survey of health conditions among school children in several large cities has revealed an astonishing percentage of malnutrition or undernourishment due to deficiencies in the diet.

A feature which has been developed materially during the present season is the sending to newspapers and magazines of interesting news material on the California citrus industry, both in the form of news articles and pictures, a service which has met with a ready acceptance by editors.

Letters requesting the Sunkist recipe book and other booklets were received from 145,032 persons during the season. Included in this distribution were 62,411 Sunkist recipe files and recipe card sets which were sold to housewives at cost.

Citrus fruit growers must be mindful of the constantly increasing competition from other fruits, the acreage of which is being rapidly extended, of the advertising of these fruits and of other food

products, and continue their advertising on a scale which will keep Oranges and Lemons in the enviable position which they now occupy with the public and extend their use.

Dealer Service.

Approximately 3,000 jobbers and more than 400,000 retailers sell citrus fruit. Attractive displays and reasonable margins are the important factors in the retail sale of fruits, and to stimulate the interest and promote full appreciation on the part of the trade in the merchandising possibilities of citrus fruits an extensive dealer service has been built up by the Exchange.

This personal trade work was necessarily very much restricted following the crop damage, but even with the reduced force 12,825 retailers were visited during the season and Sunkist display material was placed and fruit windows personally decorated in 8,468 stores.

Inquiries from the trade and requests for Sunkist service aggregated 7,620 for the season, an average of 635 a month. In connection with this mail service 39,825 pieces of Sunkist display material, theatre slides, illustrated cuts for newspaper advertising and other selling aids were sent to dealers on request.

Fresh Fruit Drinks.

During the season the Exchange manufactured and sold to soda fountains 5,260 Sunkist Electric Fruit Juice Extractors, thus introducing for the first time in a large way the service of fresh fruit orangeade and lemonade at the fountains.

The soda fountains of the country, numbering over 60,000, are practically an untouched market for Oranges and Lemons, and the development of this large and important field has awaited the perfection of a practical device for quickly and conveniently extracting the juice from Oranges and Lemons to meet the demands of fountain service.

Exchange Research Laboratory.

The Exchange Research Laboratory has continued its work in the investigation of problems of a chemical nature connected with the citrus industry and in assisting the by-product companies formed by Exchange growers in developing a profitable outlet for the increasing quantities of Oranges and Lemons not suitable for sale as fresh fruit.

During the past season, a thorough study has been made of the effect of various sprays on the composition of Oranges. The method for the recovery of pectin from the Orange and Lemon refuse now discarded at the by-products plants has been worked out in the research laboratory. A very superior powdered pectin was produced.

Much attention has been given to the problem of preparing concentrated citrus juices in syrup form suitable for bottlers' use, and two very high-grade concentrates have been produced by the Orange Products Company.

Exchange Lemon Products Company.

During the past year, Exchange Lemon growers delivered to the Exchange Lemon Products Company at Corona 9,800 tons of fruit unsalable in the fresh fruit market, equivalent to 650 carloads, which represents an average run of two carloads per working day.

The factory produced during the season 12,000 pounds of Lemon oil and 580,000 pounds of citric acid. The citric acid sales for the year have been unusually large—780,000 pounds—disposing of the entire production and of the reserve stock carried forward from the year before.

The total capital now invested in this Lemon salvage enterprise is £50,000. Since its organization in 1915, the company has returned to shippers in payment for cull Lemons a total of £83,000.

Exchange Orange Products Company.

The Exchange Orange Products Company of San Dimas is operated by members of the California Fruitgrowers' Exchange to develop methods for the utilization of Oranges not suitable for shipment.

A successful process for the recovery of the essential oil of Orange has been put into operation and the organization has become a well-recognized factor in Orange oil production. Very encouraging results have been attained in the manufacture of concentrated Orange juice on a small commercial scale.

During the two years of its existence, the San Dimas plant has processed fruit at the rate of 1,200 tons—the equivalent of 80 carloads—per month and it will be able this year to return to the growers a creditable amount for a large volume of fruit which, on account of the severe damage by frost, would otherwise have been entirely worthless.

Fruitgrowers' Supply Company.

The Fruitgrowers' Supply Co., which was organized by Exchange growers to secure for them their packing house and orchard supplies, has furnished them during the last 12 months approximately £775,000 worth of supplies for the packing operations and £455,000 worth for the orchards. In addition, the value of the production of its lumber plants for their fiscal year ending December 31, is estimated at £618,000.

The supply company is an important part of the Exchange organization. The demand for box material in California has grown enormously in recent years, considerably beyond the extension of the commercial lumbering operations.

APPRECIATION FROM SOUTH AUSTRALIA.

Cudlee Creek,

South Australia, 26/1/23

We very much appreciate the "Fruit World" and consider it a very valuable paper and invariably find it full of interest. W. F. Hannaford.

Australian Fruit in London.

Oversea Visitor's Impressions.

Mr. S. A. Kino, a member of the London firm of Messrs. Stanley Kino and Co., which specializes in the handling of Australian fresh, dried and canned fruits, is at present in Australia in connection with the development of the export business between London and Australia.

Speaking of

dried fruits, he stated that Australia must adopt fixed standards of quality and prices must come down. The British public preferred to purchase Australian fruits, but under existing conditions, could not afford to pay the high prices which

tons; Sultanas, 50,000 tons; Raisins, 30,000 tons. Greece at present supplies almost the whole of the Currants, while Smyrna, California, Crete and Afghanistan provide the bulk of the Sultanas, and Spain the higher grade, and South Africa—quite a recent competitor—the lower class Raisins. Australian supplies are almost negligible at present. "Australia can produce Currants equal to, if not better than, any other country," continued Mr. Kino. "Your Sultanas have a superior flavour, but are slightly too dark and unequal in colour for Home requirements. The difficulty seems to be with Lexias, which have an entirely different flavour from the Spanish Valencia variety, which suits the British public. Only the very best grades of Lexias could hope to be marketed in England; the lower grades could not compete in price with the South African variety.

The hold-up of Smyrna dried fruit owing to the war with Turkey was only temporary. Last season Smyrna was reported to have had 35,000 tons of Sultanas available for export, of which about 7,000 tons were destroyed by fire. It is likely that she will have a similar quantity next season.

Mr. Kino was not optimistic concerning the Imperial Preference proposal. Some small concessions would probably be granted, but he thought nothing like the treatment that the delegates were asking for. The Conservative Government was elected on an economy programme, and it would be opposed to their election promises to pass legislation that would have the effect of diminishing revenue which would have to be made up by increased taxation.

Regarding

canned fruits,

the importance of careful grading and packing could not be too strongly emphasized. California normally exported annually to England about 1½ million cases of well-graded fruits, attractively labelled. Their up-to-date machinery and method of grading enabled her to standardize the various brands she placed on the English market, so that buyers were in the happy position of being able to contract for very large parcels without even seeing samples. Owing to her enormous home and exports output, and being so near to Europe, America could sell her packs at considerably lower prices than Australia.

This is Mr. Kino's seventh visit to Australia, and during his stay he is taking the opportunity of visiting all the States and a large number of the vine-growing and orchard districts situated therein.

He intends returning to London early in March.

Tresco, Vic.,
24/10/22.

I am forwarding cheque for subscription for "Fruit World." I find your paper very valuable.

A. TRINHAM.

American Apple Crop.

The United States commercial Apple crop for 1922 is placed at 31,901,000 barrels, against last year's short crop of 20,098,000, but, according to "Bradstreet's," falls below the 1920 crop of 33,905,000 barrels. The United States box Apple crop is somewhat less than last year, but much larger than it was in 1920, while the barrel Apple crop in 1922 was much larger than in 1921. Box Apples of the north-west are reported lower in quality than usual because of worms. New York's Apple crop is a little more than double last year's crop, but less than it was in 1920, and the percentage of winter Apples is said to be smaller than usual.

F. W. MOORE & Co.

Ltd.

Clarence House

8 Arthur St., London Bridge
LONDON, E.C.4., ENG.

We are the largest receivers of Green Fruit from Australia, our consignments having steadily increased annually since our business was established in London in 1902. Our Managing Director has had the handling of consignments to the markets of Great Britain and Europe since 1900, and personally supervises the sale of all fruit consigned to the Company. Fruit is placed for sale in whatever markets or way (auction or private) appear most suitable, thus getting it before all classes of buyers; our increasing consignments demonstrate the success of this practice.

F. W. J. MOORE, Managing Director

Telegrams: Tirralirra London

Bankers: Bank of New South Wales

Biddy Malone's Character.

"Biddy Malone was in a great fever of excitement when she landed direct from the 'ould country.' Her certificate of character was lost on board ship, and what would she be after doing! To her great happiness and consolation, Tim Mulligan, her Irish friend, volunteered and wrote her the following beautiful recommendation:

"This is to certify that Biddy Malone had a good character before she left the 'ould country,' but lost it on shipboard, comin' over."

Dennys, Lascelles

Ltd.

509 COLLINS STREET,
MELBOURNE

(Head Office & Wool Stores at
Geelong)

Exporters of Fruit
to the Oversea and Inter-
State Markets

T. STOTT & SONS

Fruit Merchants

Established 1882.

A Trial Consignment solicited from Growers in all States.

Prompt Settlement.

11 WESTERN MARKET
Melbourne

ruled last year. Wages in England were almost back to pre-war rates, and the spending power of the public was about 50 per cent. less than in Australia. England was the only country in Europe which could pay cash for goods. Consequently, every export country in the world was now flooding her markets. Thus, buyers had an unlimited choice from which to select.

Mr. Kino states that England normally imports about 200,000 tons of dried fruits a year, the supplies being made up as follows:—Currants, 120,000

THE ORCHARDIST of to-day combines, as far as is possible, efficiency and cheapness in his man-
urial programme. Bulk of fertiliser counts nothing nowadays, for the modern fruitgrower buys his fertilisers on the basis of their unit value of plant food. That is the reason why Sulphate of Ammonia has become, more than ever, an orchardist's fertiliser. Containing $24\frac{1}{2}$ per cent. ammonia, equivalent to 20 per cent. Nitrogen, sulphate of ammonia is the cheapest and most efficient nitrogen fertiliser on the market.

Handbook entitled "*Productive Fertilisers*" which gives a wealth of data concerning sulphate of ammonia, will be published shortly. Register your name NOW for a copy with the Australian Sulphate of Ammonia Propaganda Committee, 360 Collins Street, Melbourne, Victoria.

Storing Oranges and Lemons.

Why Cannot Citrus Fruits be Exported from Australia Without Cold Storage, Just as Italian Citrus Come to Australia Without Cold Storage?

Oranges and Lemons are regularly sent from Italy to Australia (as to other parts of the world) without cold storage. The fruit is tightly packed in closed, unventilated cases, and shipped as ordinary cargo.

How different is the Australian method of shipping citrus: the fruit is packed in ventilated cases and conveyed in ship's cold storage chambers, and even then there is a far higher percentage of waste than under the method adopted by the Italians.

What is the secret of the success in shipping of citrus from Italy?

Many believe it is in the system of curing the skins prior to shipment.

An important experiment has been made at Shepparton (Vic.), by Mr. J. L. Holland, a citrus grower of the district, which goes to prove the possibilities of the keeping qualities of citrus fruits.

Writing on this subject a Shepparton Correspondent who believes that Australian Citrus could be shipped to England without Cold Storage, states:—

"When one of the shipments of Oranges for London left Victoria in July last, Mr. Holland picked some Oranges and Lemons and packed them in sand, and the sample that was opened and shown me to-day, compares with the very best Oranges and Lemons that are imported from Italy and Spain, particularly in flavor and appearance; whilst those sent overseas in cool storage would be rotten long ago, they are six months old and improved in appearance and flavor, whereas had it been possible to cool store them for the same period the flavor would be inclined to deteriorate."

The experiment is shown at foot of Page.

As in all stored fruit, there was a certain amount of decay.

A very great deal of credit is due to Mr. Holland, who has gone to a lot of trouble and expense to ascertain the right condition of the sand for storing in, also the condition of the fruit. These, of course, were the factors deciding success or failure.

If other growers would like to try these experiments the following suggestions are added:—

1. Sweat the Oranges about 15 days before packing, but be guided more by

the condition of the peel, as cool or dry weather either hastens or delays the sweating accordingly.

2. Do not try and put too many Oranges or Lemons in a box (if boxes are used).

3. Use generous layers of sand.

4. Obtain the finest sand, but make sure it is free from fibre or loam.

bright, fresh appearance to the kid glove like condition of the peel.

7. Wrap some layers in tissue paper before putting in the sand.

8. Stack in a dry, cool shed.

9. Other treatment re care in picking, handling, etc., as advised by Mr Cock, Vict. Citriculturist, for export

10. It would also be worth experimenting in some material other than sand, that would be light, close, dry, moisture absorbent, and a bad conductor of heat.

DISPLAY OF SOUTH AFRICAN FRUIT.

A display of South African peaches, plums and pears was on view during February, at the offices of the Victorian Department of Agriculture. The fruit was sent to Australia by the South African office of T. J. Poupart Ltd., the idea being to show Australian growers the manner in which this fruit is packed and graded for the London market. Quite a number of Victorian growers inspected the display and commented favorably on it.

The consignment which contained 30 cases included the following:— **Japanese Plums** graded choice and selected 45 to 50 fruits to the tray or case. **Pears Williams**, marked selected 25 to the case. **Peaches**, orange cling variety Graded-Selected (21-24) and choice (28). The fruit is securely packed, wood wool being used freely between and around each fruit, which is graded from the point of view of size, quality and freedom from blemish.

The cases or trays for peaches and pears are of softwood, inside measurements being 12ins. x 18ins. x 3ins. The plum trays are 1/4in. less in depth. The side pieces are 3/4in. thick, the ends 1/2in. and the lid and bottom 3/4in. A cleat is nailed across the top of the tray, at each end, to securely fasten the lid down. This cleat relieves the pressure on the fruit and also allows air circulation.

Each case bears a label with the name of the grower, number and variety of fruit. Each grower, has his own district label; which in addition to being on the outside of the case is also on the paper which wraps each fruit.

Mr. E. W. T. Adams the Victorian representative for T. J. Poupart Ltd., who was in charge of the fruit, stated that there was a good market in London for Australian soft fruits if put up in the same attractive manner as the South African fruit. South African pears packed like those exhibited sold retail in the large London fruit shops at 1/- apiece.

Gerald DaCosta



Head Offices:

5 & 7 Eastcheap,
LONDON, E.C. 3

**Importers and Distributors
of all kinds of English,
Colonial and Foreign
Market Produce**

BRANCHES:

Covent Garden, London, W.C. 2. Tel. Gerrard 868. Telegrams, "Geracost, London."

Spitalfields Market, London, E. 1. Tel. Avenue 8804. Tel.grams, "Spitacost, Lond."

3, 4 & 5 The Arcade, Borough Market, London, S.E. 1. Tel. Hop 3373. Telegrams, "Borocost, London."

G.N.R. Potato Market, King's Cross, N.I. Telegrams, "Kincrocost, London."

3-5 Pudding Lane, Monument, London, E.C. 3. Tel. Avenue 7990. Telegrams, "Fruits, London."

18 Stanley Street, Liverpool. L. Tel. Central 888. Telegrams, "Geracost, Liverpool." Southampton Docks (Facing No. 45 shed), Tel. Southampton 2207. Telegrams, "Geracost, Southampton."

American Branch, 202-4 Franklin Street, New York. Cables, "Geracost, New York"

5. Sand must be absolutely dry, by evaporating all moisture either in one of the local dehydrators which are in some districts, or in an oven.

6. Secret of success is having a thoroughly dry sand (not that which has only been heated in an oven for only a few minutes). The remaining moisture from the properly sweated fruit in the dry sand is sufficient to give the

Variety.	Picked.	Sweated.	Opened up.	Length of Time the Fruit Kept.	Condition.
Lisbon Lemons	25th June	14 days	15th Jan.	30 weeks (over 7 months)	Looked as if would keep
Washington Navel Oranges	12th July	14 days	15th Jan.	26 weeks (over 6 months)	another month out of
Late Valencia Orange . . .	28th August	14 days	15th Jan.	21 weeks (over 5 months)	storage.

Western Australia.

Fruit Advisory Board.

UNDER the scheme suggested by the Federal Government, advisory Boards have been formed in the various states to watch over all branches of the Fruit industry in their respective states.

A meeting of Western Australian advisory Board was held at Perth in January.

Chairman.—Mr. Owen Sparks was elected Chairman of the Board.

Vice Chairman.—Mr. A. T. Booth was elected to the position of Vice Chairman.

Secretary.—Mr. W. M. Collins, Commercial Union Chambers, St. Georges' Terrace, Perth, W. A., was appointed Secretary and Treasurer.

Finance.—The Board waited on the Premier and the Minister for Agriculture, who agreed to advance sufficient funds to enable the Board to carry on until it had been given power to collect from orchardists or financed by the Federal Government, when the advance would have to be paid.

It was considered that the financing of the various Boards should be done by the Federal Government, especially as the collection of the small amount required from orchardists would involve a high percentage of waste through collecting costs.

Freight on Fruit to United Kingdom.—The importance of a reduction in freight was earnestly emphasized.

Constitution.—A form of Constitution was drawn up, to be finalised and confirmed later.

Preferential Tariff with Canada.—It was decided by the Board to take steps to induce the Federal Government to enter into a reciprocal tariff arrangement with the Canadian Government, whereby Australian fruit would be admitted to the Dominion free of duty.

The Board understood that there was a ready market in Canada for Australian fruits—both fresh and dried—and that there would be little difficulty in the way of arriving at such an agreement.

Covent Garden Charges.—The Board decided to ask both the State and Federal Governments to take steps to have removed the tax which has now to be paid to the Covent Garden authorities on all fruit shipped to London.

Citrus Shipments.—Members of the Board, subsequent to the meeting, met the Citrus Sub-Committee of the W. A. Fruit Shippers' Committee, and went into the question of citrus shipments for the coming season.

It was decided that in view of the apparent desire of London consignees for the bushel and a half case that this sized case should be used for this year's orange shipments.

It was agreed also to endeavor to induce growers to adopt a uniform method of packing, and a committee was formed to enquire into the methods

in use in the Eastern States, and to decide on the best methods for Western Australian fruit. When these are ultimately decided, growers will be advised, and will it is hoped adopt the Committee's recommendations.

The Committee also decided to recommend that growers should allow their fruit to sweat for two weeks after picking before packing for export.

This question has been fully gone into, and it is agreed that two weeks is the minimum period which should be allowed to ensure the safe carriage of the fruit.

The question of quality of fruit for export also came up for discussion. In the past many growers have shipped very inferior fruit, and the Committee hopes that this will not be continued. It is essential that if Western Australian oranges are to obtain a reputation on the London Market similar to that held by Western Australian apples, growers must be careful to pack only high grade fruit.

The Committee decided to recommend growers to keep this position in view in connection with the coming season's shipments.

Kendenup—Mt. Barker

Mr. C. H. Button, Orchard Supervisor, Kendenup, (Mt. Barker District) Western Australia, writes in answer to questions:—

During March growers are busy Packing Export Apples.

Cover Crops.—I strongly favour ploughing in cover crops especially of the legume family.

Manuring.—For average trees in bearing I suggest 1½ to 2lbs. of sulphate of potash and 5lbs. of superphosphate per tree, drilled in about August then 1 to 1½lbs. nitrate of soda broadcast towards the end of October and worked in with cultivator.

When cover crops are sown the super and potash are applied at the time of sowing in the Autumn and Nitrate of soda in October. Every second or third year Blood and Bone is substituted for super.

Picking for Export.—The practice here is to pick for size and colour and all undersized fruit is left on the trees to mature. This increases in size and colours well.

It is estimated that about 80,000 cases will be shipped from this district this season.

Bud Selection.—In choosing scions or buds care should be exercised only to use those from healthy vigorous trees producing regular crops of typical fruit. This point cannot be too strongly stressed.

"Excuse me, mister," said the stranger to the bishop, "but I think I've seen your picture in the papers."

"Very probably," answered the bishop.

"Kin I ask," inquired the stranger, edging nearer, "what you was cured of?"

FIRST!

The LATHAM DEHYDRATORS

The Widest Fruit Drying Experience in the World is Behind These Plants

A Few Installations

Purchaser	Principal Fruits
Merbein Dehydration Trust, Mildura	Sultanas
Tasmanian Dehydration Pty. Ltd., Bridgewater	Apricots Prunes Apples
Charles Martin, Yackandandah	Prunes

— ALSO —

COMPLETE LEMON PROCESSING PLANTS

Expert Instruction re methods

DRIED FRUIT GRADERS

DRIED FRUIT BOXING PRESSES

"CESTRIAN" FRESH FRUIT GRADERS

APPLE SLICING MACHINES

(Hand or Power)

Belting, Pulleys, Shafting Bearings, Engines and Boilers, Cranes & Hoists, Piping, Thermometers, Trucks, Conveyors, Fruit Trays etc.

D. J. Latham
157 Queen Street,
MELBOURNE
AUSTRALIA



BEAUTIFYING THE ORCHARD HOMESTEAD



ROSES AND FRAGRANCE.

FOR THE NEXT FEW WEEKS, gardeners will be going around their own gardens, and the gardens of their friends watching the roses, and noting new varieties for the next planting season. It is some years ago, when addressing a society of business men on "Rose Growing," that I said, "Ninety-nine out of every hundred men will instinctively attempt to inhale the fragrance of any rose that is given to them." That remark is as true to-day as ever it was. But unfortunately a large number of our modern roses have little or no fragrance at all.

When on my holidays I read that charming book by David Grayson, "Great Possessions." The author in speaking of fragrance in plants says:—"Here I fancy our smooth Jacob has been at work, and in the lucrative process of selection for the eyes alone, the cunning horticulturist has cheated us of our rightful heritage of fragrance." No truer words were ever written. Fragrance in a rose is our rightful heritage, therefore we should demand it from the raisers. Look at the rose Frau Karl Druschki, the most beautiful of white rose, but utterly devoid of fragrance; A rose without a soul!

So that I hope during the next few weeks, my readers will, when selecting roses, choose those that are not alone beautiful, but which as well, possesses an undoubted fragrance. Among the more modern roses are two which I planted in my garden, and which possesses the double charm. Edgar M. Burnett is a large full rose, almost too large if disbudded. It is flesh and rose in colour, and has a decidedly sweet La France fragrance. It was sent out by McGredy of Ireland as an improvement on La France. It is hardly that, but it is a very fine rose. The other good deep pink rose, was also sent out by McGredy, is Edith Part. The outer side of the petals is much deeper than the inner, and the perfume is very sweet. Both of these roses are abundant bloomers.

I might here mention a few good and fragrant roses. One of the older roses is Mary Countess of Ichester, an Irish rose sent out by Dickson. It has a very erect habit of growth, and the colour is a warm deep carmine. The flowers are full and almost tea scented.

It is both free growing and free flowering.

A very delicately fragrant rose is **Madam Jules Bouche**. It is both vigorous and free flowering. The colour is almost white, with a suggestion of salmon pink, especially in the buds, and the flowers are daintily perfect in shape. It ought to be more grown and better known.

One of the good orange yellow roses with fragrance is **Iona Herdman**. The colour is a good flame orange; it is not a show rose, but it is a good thing for any garden. I have seen some wonderful roses of this variety in the purity of the country atmosphere. Mrs Bryce Allen is deep carmine in colour, rich and substantial looking. The shape is very good; but the perfume excels—it is very sweet and very strong.

Of course, nearly all the deep crimson red roses are well perfumed. It is hard to account for this, unless it is inherited, from their possible ancestor the deep red China Rose. Almost all of them carry the rich fragrance so much admired, and so much sought for in roses.

SESBANIA TRIPPETTI.

LAST OCTOBER I TOLD YOU of this newly introduced flowering shrub. Recently I was privileged to see a two year old shrub in full flower. It was about seven feet in height and about three feet through. The growth and habit were very light, and the foliage was wattle-like in formation. The shrub was just a mass of brick scarlet on account of the abundance of the bloom. The flowers were in pendant clusters, like small sweet pea or glory pea flowers. It is one of the most charming shrubs of recent introduction.

WHAT TO DO IN THE GARDEN.

HAVE YOU FOLLOWED the advice given last month to sow seed or set plants of the winter and spring flowering annuals? If not, no further delay should take place. It is urgently necessary that the plants should develop well, and that a good sturdy plant should be produced before the cold of winter comes along, and before the soil becomes too cold to allow of any further growth. Then when, and only when a plant has developed a

strong growth and a good crown, is it able to produce blooms. Vigour in a plant must always precede flowers. This especially applies to Winter flowering Sweet Peas, Iceland Poppies, Wall-flowers, Mignonette, Stocks, and similar winter flowering plants.

Now is the time to have a look at your Violet plants. Start them into gentle growth with occasional waterings. Do not manure: this will cause strong leaf development, and good crowns of leaves will result. The winter sun will not then be able to warm the crowns, and fewer flowers will be the result. Manuring violets should be carried out only after the flowering season.

Prune or trim over your **Hydrangeas**. Do not cut the whole bush back. Simply cut out the old flowering stems, pruning them to a strong bud or growth. If the bush be too crowded these old flowering growths may be cut right out from the base. But, in any case, do not cut the shoots which are growing, and which have not flowered. These are the flowering growths for next season.

Water the soil well over the clumps or rows of Daffodils and other spring flowering bulbs. Give them a good soaking right away. This will help the bulb to develop a strong and vigorous root system. Prepare the places and beds for the spring bulbs, by digging over and working manure into soil. Next month may see the main work of bulb planting. See that the soil is thoroughly wet before planting.

In the beds and plots of **Phlox Drummondii**, pull out all the weak thin colors, and the straggling plants. Then when the seed is saved, it will be saved only from strong plants of a decided colour. Carry out the same work with **Astors**, **Zinnias**, and other seeding annuals.

TOP DRESSING LAWNS AND GRASS.

THIS IS AN IMPORTANT autumn work. The soil used should be fairly light or sandy, and it should have been stored for some time. Right away spread it out, and give a good watering. This will start the weed seeds into growth. When they grew the soil may be turned over to kill them. If there be time, a second crop may be allowed to grow, and thus

you are saved the trouble of weedy lawns.

In top dressing, do not bury the grass. The dressing should be well raked over the lawns, filling up the depressions, but always allowing the grass to peep up above it. **DO NOT** top dress Buffalo or Couch grass lawns in the Autumn. They are now ceasing to grow and approaching their dormant stage. Top dress them in mid-spring when the growth period has arrived, and they will receive the benefit of every ounce of value in the top dressing.

Queensland and N. S. Wales.

A Visitor's Impressions.

Mr. G. W. Peart, manager of Goodman's Nurseries, Bairnsdale, Victoria, has just returned from an extended trip through Queensland and New South Wales.

Mr. Peart speaks appreciatively of the Stanthorpe show, which he states was really excellent, despite the seasonal difficulties. The Ponds Seedling Plums were, in his opinion, the best he has seen in Australia. This opinion was confirmed by Mr. F. Chilton, one of the fruit judges.

Speaking of the Stanthorpe district generally, Mr. Peart states many growers seem depressed because of the bad season, the district having been visited by a disastrous hailstorm, and the dry weather has also reduced the crops. There had been a big increase in planting, espe-

cially on the soldier settlements. Mr. Peart, however, takes a hopeful view, especially in view of the fact that the Stanthorpe country is so eminently suitable for Apple growing. The following three varieties were outstanding:—Granny Smith, Jonathan, and Delicious. Even early in February growers were receiving 9/- to 13/- per case for Jonathan Apples on the Brisbane market. Previously, too many varieties had been planted.

Mr. Peart met two ex-Tasmanians—Mr. J. M. Ward, the Fruit Instructor, and Mr. Rowlands, the Packing Instructor; under the guidance of the latter there has been a marked improvement in the packing of the fruit.

In New South Wales Mr. Peart visited Bathurst and Orange. In the latter district growers were prospering in the production of Cherries, Apples and Grapes. Here again, the varieties are being standardized and as the district was proved to be suitable for growing Delicious, Granny Smith and Jonathan. One grower said that if planting out 20 acres of Cherries he would devote 18 acres to the St. Margaret variety.

Visiting the Murrumbidgee Irrigation Areas, Mr. Peart states that at Leeton the growers on good land are producing heavy crops of Peaches and Oranges. One grower gathered 24 tons of Elberta Peaches from 190 trees (9 years old). Another grower's crop was 32 tons per acre of Pullar's Cling. Peaches. The trees are planted 90 to the acre, and are 20 feet high, being long pruned.

Mr. Peart states that this locality is excellent for the production of Peaches

and Oranges, but, on the whole, it is not good Pear country.

At the Leeton cannery, after canning 280 tons of Elbertas for the Federal pool, the balance was processed by organizing a local pool. Mr. Brady, the cannery manager, is well esteemed in the district. The cannery had been improved by the installation of new labor-saving machinery.

The variety Phillip's Cling, which is reported elsewhere to be a shy bearer, Mr. Peart found to be bearing tremendous crops at Leeton. Trees were breaking down to the ground with the heavy crop of fruit. He points out, however, that there are three distinct types of Phillip's Cling Peach, evidently the Leeton growers have got the correct type. There were also some excellent crops of Prunes.

At the Experimental Farm at Yanco, Mr. Peart met the superintendent (Mr. Chomley), and the orchard manager (Mr. W. W. Cooke). The previous orchard manager (Mr. J. Arthur) had transferred to the Hawkesbury College. The 50-acre experimental orchard was found to be in good order, and many interesting experiments had been carried out.

A visit was paid to the Griffith end of the settlement; the organization of the growers in the latter locality was favorably commented on. With regard to citrus at Griffith, growers had decided that the Thompson's Improved Orange was unsatisfactory, and bearing trees of Washington Navel Oranges had been purchased so that the buds could be taken for working trees over to this variety.

ESTABLISHED 1866

TELEPHONE 2979

Watters' Seeds

For the CHOICEST VEGETABLES and most BEAUTIFUL FLOWERS sow our Seeds

We are Headquarters for—

Hunter River Lucerne

Cleaned by our Special Machinery, and free from all weeds
SPECIAL QUOTATIONS for Cwt. or Ton Lots, on application

We have large stocks of the following in best re-cleaned Seed: Broadleaf Dwarf Essex Rape, Grasses, Clovers, and all varieties of Green Fodder and Root Crop Seeds

Write at once for our Special Quotations

Spraying Oils, Fungicides, Raffia

Illustrated Catalogue and Calendar, post free.

WATTERS & SONS

251 & 253 SWANSTON STREET MELBOURNE

The Farmers and Settlers' Co-operative Insurance Company of Australia Ltd.

Capital : £100,000. Subscribed Capital : £70,000
Paid Up : £35,000

This is THE ORCHARDIST'S CO.,

for insuring his buildings, fruit in store, Workers' Compensation, and other risks. An orchardist who becomes a shareholder and places his insurances with this Company participates in the profits which his own business creates. Thousands of farmers and orchardists are already shareholders. Write for particulars.

Victorian Branch: Directors—Mr. SYDNEY SAMPSON, M.H.R.,
Mr. Duncan McLENNAN, Mr. P. H. H. IBBOTT.
Manager: H. L. CARROLL.

Address: 360 Collins Street, Melbourne

YOU are invited to become a shareholder
AGENTS WANTED



Care of Children's Teeth.

THROUGH CARE AND ATTENTION give a child a good set of teeth, and the proper knowledge of how he himself can look after them; and he will assuredly have excellent teeth and a good digestion all his life-time.

Just as much care should be exercised over the first or milk-teeth as over the second or permanent set. It is a mistake to allow the first teeth to decay for if decay is in the mouth when the second teeth arrive they will have every opportunity to become infected also. One prevalent mistake is made by parents considering that the four double-teeth, which come next to the two-year-old teeth, when the child is about six years of age, are the last of first set. This is not so. They are the forerunners of the permanent set, and are called six-year-old molars.

Great care should be taken to see that teeth of the permanent set are not extracted in such a way as to leave that particular side of the jaw practically useless. I know of a case where a woman can chew food on one side of her mouth only, simply because teeth on the opposite side have been indiscriminately extracted, and opposite every tooth in the lower jaw there is a space in the upper jaw and vice versa; consequently there is nothing to chew upon.

Every mother should jealously watch her children's teeth—especially the back teeth—and directly there is a speck of decay the tooth should be stopped.

If the teeth are kept right in childhood they tend to remain so for life. Decay of teeth is essentially a disease of early life and spreads from tooth to tooth.

Beware of dentists who advise indiscriminate removal of teeth. Many of them have not sufficient knowledge and to extract the decayed tooth is the easiest way out of the difficulty.

I would like to give ten points as set out for the prevention of decay by that well-known benefactor of childhood, Dr. Truby King:—

1. Do everything to maintain good health. Teeth are built out of blood. For the baby, suckling is the great essential.

2. To ensure good, sound, well-enamelled, lasting teeth, the food and manner of feeding must be such as to compel ample exercise for mouth and jaws throughout babyhood and childhood. "Bring up a child in the way he should go, and when he is old he will not depart from it." The habit of slow chew-

ing, once firmly established, will tend to be maintained for life.

3. The composition of the food must be suitable—that is, adapted to the perfect building up of the structures of the body.

4. Avoid the use of long-tube feeder and dummy, and make sure that the baby "works for his living."

5. Give baby a bone to munch from six months onwards. This serves to promote the development and growth of the jaws and teeth, and helps the eruption of the latter. At nine months give tough crusts, toast, etc.

In the second year and onwards a fair proportion of the food should be dry, firm, hard, or tough—e.g., crusts, crisped bread, toast, raw ripe apple, etc.

6. Teach the baby to chew his food vigorously and thoroughly, taking sufficient time over his meals. Don't allow him to bolt any of his food, whether solid or liquid, but, on the other hand, don't encourage mere dawdling. At the end of a well-chewed meal the jaws should be comfortably tired, the flow of saliva should be ceasing, and there should be a feeling of healthy satisfaction. This constitutes the normal check against over-eating and ensures the highest nutritive results from the food taken, while at the same time developing jaws and teeth for future work.

7. Hard or tough food, if well chewed, helps to make good teeth and to keep them sound; it also helps to cleanse them. This applies especially to raw, ripe apple, and to all kinds of firm, fibrous fruit and vegetables.

8. Soft foods cling to the teeth and tend to cause decay; therefore cakes, sweets, ordinary biscuits, chocolates, etc., should be avoided habitually and should on no account be given at bedtime. All decay commences on the outside of the teeth, never from within; it starts in crevices in the crowns, or between two teeth.

9. The tongue is not primarily for "talking," but is a "masticatory organ" and should do a large proportion of the work in eating—squeezing the moistened food out between the teeth and forcibly crushing it against the hard, roughened roof of the mouth. Further it is practically a kind of toothbrush, which, if properly exercised and developed, does much to cleanse the mouth. A clean mouth ensures sweetness of breath.

10. The teeth should always be brushed night and morning, all the surfaces being carefully cleansed. The first, or temporary teeth, as well as the permanent ones, should be brushed and carefully watched for signs of decay. In any



case, the child should be taken to the dentist every three or four months.

If the first teeth decay early there is a poor chance for the second ones, but they may be saved by unremitting care and attention.

To Preserve Pearl Buttons.

When valuable pearl buttons are used on washable blouses and dresses, they should be removed each time before sending the articles to the wash. Quite a good plan is to sew through the holes in the buttons alone, in the same manner as one does to fasten them to a dress. Then take small safety pins and pin through the material, catching the thread on the button. The pins do not show, nor does the button come off. This is not only a great labor-saving device, but it saves the buttons as well, and enables one to use

Brandy or Ginger snaps.

Put $\frac{1}{4}$ lb. flour and $\frac{1}{4}$ lb. sugar into a basin and rub in 3 oz. butter with the tips of the fingers. Add $\frac{1}{4}$ teaspoonful ground ginger, a few drops of vanilla, and a desertspoonful of brandy if desired. Moisten with $\frac{1}{4}$ lb. syrup and mix well. Form the paste into small balls the size of a marble, and place them on a greased baking tin, allowing plenty of room between them. Bake in a moderate oven until brown and spread out as thin as a wafer. Cool for 2 minutes then remove from the tin with a knife and twist round a wooden roller, or over small cornet-shaped moulds. Remove when cold, and the snaps are dry and crisp. This quantity should make about twenty. They are better eaten fresh, but can be kept for a day in a tin box.

A dainty sweet may be made by filling the wafers with whipped cream just before serving.

Apple Creams.

Make $\frac{1}{2}$ pint of apple puree by rubbing baked or stewed apples through a fine sieve. Strain into this while still warm $\frac{1}{4}$ oz. gelatine dissolved in a little water or apple juice, and mix well. Then add 1 gill thick custard, sugar if necessary, 2 or 3 drops of carmine, and 3 drops of ratafia essence. Mix again and set aside to cool. Then pile up in individual serving dishes, cap with whipped cream, and serve with wafer biscuits. Other fruit creams could be made in the same way.

Instruction in Fruit Packing.

Valuable Work by the Department of Agriculture, Victoria.

The Department of Agriculture, Victoria, is to be warmly commended on its programme for furnishing instruction in fruit packing. A special officer (Mr. B. Krone) has been set apart for this duty, and some exceedingly valuable work is being done. Large classes have been conducted in various fruitgrowing centres, and applications are being received by the Department for more of such classes to be arranged.

The procedure is simple. Where a class consisting of at least 10 pupils can be organized, application is made to the Department of Agriculture, and the necessary arrangements are completed. For instance, the district applying has to provide certain facilities in the way of shed accommodation, cases, fruit, etc. Classes last a week, and pupils of all ages and both sexes are welcome.

In the districts which Mr. Krone has visited keen appreciation is expressed.

This is unquestionably the correct method of improving the pack of our fruit. Growers of all kinds of fruit are entitled to apply for Mr. Krone's services, but up to the present his work has principally been confined to the Apple, Pear, Peach and Orange growing districts.

Even experienced packers have learnt wrinkles from Mr. Krone's methods, while as regards instructing the young

people in fruitgrowing centres no better. In addition to the services rendered, the Department of Agriculture, through Mr. Krone, supplies a chart illustrating the various packs and the number of fruits, according to size, to completely fill the cases.

We suggest that applications for the services of the Department's Packing Instructor be made without delay in order that the district thus applying can be more speedily served.

The work of the Department in this connection is most heartily appreciated. method could surely be suggested than that of organizing packing schools.

Edward Jacobs & Sons, Covent Garden Market London (England)

Solicit
consignments of Australian
Fruits

Tasmanian Representative:

W. D. Peacock & Co. Ltd.

PRINCES WHARF, HOBART
Shipping Number 418

SHOWS TO COME.

Victoria. March.

Diamond Creek	10
Somerville	14
Ringwood	16-17
Yarra Glen	21
Croydon and District (Kilsyth)	23 & 24
Red Hill	28

New South Wales. March.

Central New England (Glen Innes)	6, 7, 8
Hunter River (West Maitland)	7 to 10
Camden	16, 17
Batlow	20-1
Royal Agricultural Society of N.S.W.	26 to April 4

April.

Hawkesbury River (Windsor)	3, 4, 5
----------------------------	---------

Queensland.

April.

Killarney	11, 12
Toowoomba	17, 19

May.

Blackall	9, 10
Ipswich	23, 24

June.

Woombye	20, 21
Kilcoy	23, 29
Ithaca	29, 30

Commonwealth Government Line of Steamers

FAST PASSENGER AND CARGO SERVICE TO LONDON

Via Adelaide, Fremantle, Colombo and Port Said, transhipping at Colombo for Calcutta, Rangoon, Madras and Bombay : : :

Vessels Sail from Port Melbourne as under:—

T.S.S. "MORETON BAY"	13,850 tons	J. Mason	7th Mar. 1923
" " "JERVIS BAY"	13,850 "	W. R. Chaplin	4th April 1923
" " "LARGS BAY"	13,850 "	J. Beighton	25th April 1923
" " "HOBSON'S BAY"	13,850 "	F. J. Ogilvie	16th May 1923
" " "ESPERANCE BAY"	13,850 "	R. MacKenzie	13th June 1923

Special Provision made for Refrigerated Cargo

For further particulars apply to:

Australian Head Office - - - 447-451 Collins Street, Melbourne

Branch Offices: SYDNEY, ADELAIDE, BRISBANE

Agents all Australian Ports



Poultry Notes.

(Conducted by Ian Hamilton.)

CHICKEN CHATTER.

CHICKENS HATCHED AFTER SEPTEMBER require plenty of meat and green feed in their diet throughout the late summer months. A good proportion is $\frac{1}{2}$ meal, $\frac{1}{2}$ meat, and $\frac{1}{4}$ green stuff. Meat aids greatly in bringing your chickens along rapidly, but plenty of green feed must be provided with it.

Too rapid growth sometimes results in leg weakness, this being particularly noticeable amongst cockerels. To check this, chickens after they are six weeks old should be provided with extra bone meal, and bone grit may be substituted with advantage for the ordinary grit until the birds have finished growing.

Cracked grain may be fed to chicks after the fourth week, and gradually whole wheat and maize can be substituted.

The morning diet will, of course, consist of a mash with house scraps and other delicacies added.

BREEDING POINTS.

A neat head and full and prominent eyes denote the layer.

It does not pay to mate good layers with an inferior male bird.

Never put a bird into the breeding pen when it lacks the width across the back that is so essential in producing the vigorous youngster.

A bird that is not fully matured should have no place in the breeding pen.

The heavy, thick-skulled bird with overhanging eyebrows, loose feather and with a super abundance of fluff round the thighs is not the bird to produce good layers.

A vigorous cockerel mated with second-season hens usually gives good results. An older male bird may also be mated with well-developed pullets, but it is not advisable to mate a young cockerel with pullets for breeding purposes.

TESTING EGGS FOR FRESHNESS.

Have a basin of water and place the egg in it; if they sit fairly on the side they are fresh; if they tilt a little to one end they are beginning to go, and as they grow staler, the more they will tilt until they reach the floating stage, when they are bad and of no use for consumption.

THE IMPORTANCE OF VITALITY.

THE EGG HATCHES in proportion to the health instilled into it." It is therefore a necessity, says "Utility," that the hens shall so be nourished that they will be full of activity and health.

Eggs may hatch well, and the chickens may make good enough growth, but there will always be just something wrong with them, because of their lack of vitality. These chickens are unfit to live.

So with the breeders, it is well for every man with a breeding pen to have another look over them to see if the birds are all they should be.

See that they are full of health and are being managed in such a way that the chickens will be full of vigour from the time they struggle from the egg.

In the egg substance lies "all the latent vital principles of a living being." In it are concealed all the component parts of a bird's body, parts that only require the proper degree of heat to change them into life.

Is it not right, then, that we should have in this egg everything that is right, that it should be healthy so that the chicken when it grows up will be a credit to its breed and a picture in its breeder's yard?

The anatomy of the egg prior to the commencement of incubation is simple. Immediately beneath the shell is the membrane consisting of two layers separated at the larger end to form the air cell. This is filled with air containing an unusual proportion of oxygen designed to serve the respiration of the future chicken.

Enclosed in the membranes is the albumen with the suspending cords, and lastly the yolk, with the germ enclosed in the special membrane. It is by heat that this germ is brought into life and activity.

CLEANLINESS.

One of the first and most important principles to be introduced into the

poultry yards is that of cleanliness. Clean yards, clean houses and clean drinking vessels and food receptacles mean healthy fowls, more eggs, and consequently larger returns.

At this season of the year, when fowls are moulting, feathers soon begin to accumulate and the broom should therefore be kept busy. Feathers, if left to lie about the pens, not only look most untidy, but they harbour vermin and pollute drinking water and food into which they quickly find their way, if not disposed of at frequent intervals.

Beekeeping Notes

MANY QUEENS ARE LOST in bad weather when on their mating trips. The bee-keeper should satisfy himself from time to time that no harm has happened to the queen when the time for the appearance of eggs becomes too protracted.

Bees will usually accept a new queen if she is introduced into the hive about forty-eight hours after they have been made queenless.

Soft candy for use in queen cages is made by adding best castor sugar to honey, and kneading the whole until it forms a stiff paste. It may be kept in a glass jar, and should be stored in a cool, dry place for use as required.

To secure strong colonies early in September, autumn-reared queens are essential.

Colonies often raise queen cells on their own brood, and the hive should be examined on the fourth or fifth day so that these may be destroyed.

Make use of the slack periods by constructing new hives and appliances that you expect to need in the busy season.

A general overhaul of all hives should be made annually, and the necessary repairs and replacements effected at an opportune time.

Spare hives should be thoroughly scrubbed out, disinfected and painted in readiness for the swarms.

It is a common expression among bee-men that colonies are either made or lost in February and March, and there is much truth in the saying. Now is the time of preparation for the next bee season, and by your foresight now you will ensure a bountiful harvest later.

Where stocks are weak they should now be united. Re-queening may be necessary if the mother bees are old or indifferent.

Make a final examination of stocks, filling up any colonies requiring food. This operation should take place early in March.

When selecting or making a hive see that it is constructed of good, well-seasoned timber. It should be at least $\frac{3}{4}$ in. thick. It is better that it be square, then the combs may be placed either parallel or at right angles to the entrance as desired.

LOCALITY.

It must be understood, says Mr. F. R. Beuhne, Victorian Government Apiculturist, that although bees may be kept almost anywhere, even near cities, and when properly managed some return may be secured, no one should take up bee-

planted, the expense would be out of proportion to the return secured even if neighbours' bees and wild bees could be prevented from trespassing.

Australia has such a splendid honey-producing flora, if bee-keepers will only go to it, that there is no need whatever to raise plants specially for honey. Only a fraction of the nectar produced annually by our native flora is at present being gathered by bees.

"DUMPING CHEAP AUSTRALIAN TREES."

Unfortunate Speech by New Zealand Minister for Agriculture.

At the sixteenth annual conference of the New Zealand Association of Nurserymen, held at Wellington on 17th January last, the Minister of Agriculture (the Hon. W. Nosworthy) stated in the course of his address: "Every effort had been made to prevent the dumping of cheap Australian trees in New Zealand, and the Department would continue to be alert in this regard in the future."

These remarks will be perused with sincere regret by nurserymen, and all interested in the fruit industry in Australia. The time has long since passed when there should be any necessity for indulging in remarks of this kind, especially from one so highly placed as a Minister of the Crown. Australia and New Zealand are bound together by ties deeper than can be expressed in any commercial sense. The word "Anzac," forged in the time of war, typifies the common bond between Australia and New Zealand; yet it is the extension of commercial interests to which nations bend their energies in time of peace. There is a healthy reciprocal trade between Australia and New Zealand in many lines.

In regard to Australian-grown fruit trees, of which there are none better in the world, these were shut out from New Zealand on account of an alleged disease. That this alleged disease is non-existent has been so clearly proved that to attempt further proof would be labouring the subject.

We have always insisted that if the New Zealand Government desired to protect its nurserymen against Australian competition, the matter was in their own hands in the placing of a duty thereon. This would then be clearly understood, and Australia would know where she stood in regard to a duty on importations of other lines from New Zealand.

Now the Minister for Agriculture has apparently ceased his idle talk of Australian fruit trees having been diseased, and is reduced to the extreme limits of making gibes.

Very many New Zealand fruit-growers hold a different view from that expressed by Mr. Nosworthy. They greatly regret that through the misguided action of the New Zealand Department of Agriculture they are debarred from securing clean, well-grown,

high-quality Australian trees at reasonable prices.

However, whilst Mr. Nosworthy's remarks will doubtless be resented by many, we think that more will have nothing but feelings of sincere regret that a Minister of the Crown should so far lower himself as to throw gratuitous insults to an honourable body of Australian producers.

GRAPES FOR EXPORT.

Efforts are being made to establish the export trade in Grapes, particularly the Ohanez variety. Mr. C. E.

MARGETSON & CO. LTD.

Fruit Importers and
Salesmen

30 James St. and James
St. Warehouses,
COVENT GARDEN
LONDON, W.C.

and at
Jamaica House,
9 & 10 Botolph Lane, London, E.C.

Sales by PRIVATE TREATY.

Prompt Returns and Settlements

Tel. Add.—FRUTERO, LONDON

Head Office—Covent Garden Market
London, W.C.

Bankers:

LLOYD'S BANK LIMITED
Law Courts Branch, Strand,
London, W.C.

TASMANIAN AGENT

THE PORT CYGNET FRUITGROWERS'
CO-OPERATIVE ASSOCIATION LTD.
CYGNET

keeping for profit or as a sole means of living unless prepared to go into the country as soon as the elementary knowledge and some experience in handling bees have been acquired.

As wheat growing is profitable only where fair-sized areas of easily tilled land are available, so bee-keeping requires a wide range of honey-producing flora to make it a paying occupation. To supplement the insufficient honey resources of a locality by growing flowers specially for bees is impracticable. The land available for this purpose in the neighbourhood of cities and towns is too limited in area, and too valuable.

While in remoter localities where large areas of bee-pasture might be

Covent Garden, London

Ridley, Houlding
& Co.,

Large Receivers of Australian
Fruits.

Solicit Consignments of
Apples, Pears, &c.

Best market prices and prompt

account sales returned

Correspondence invited

REPRESENTATIVE IN VICTORIA

THE
International Fruit & Mercantile Co.
410 Flinders Lane, Melbourne

TASMANIA
MURDOCH BROS., Hobart

'Phone, Central 8479

F. W. VEAR

Fruit Importer
and Exporter

COMMISSION AGENT

49 WILLIAM STREET,
MELBOURNE, VIC.

Solicits consignments of APPLES,
ORANGES, BANANAS, PINES and
all other fruits.

Account sales with cheque daily.

Howship (representing Messrs. Swann and Co., London), who has visited growers of Ohanez Grapes, is organizing consignments of some 1,000 cases this season. The bulk will go in cold storage, though Mr. Howship insists that it is perfectly safe to send them as ordinary cargo, if packed barrels with granulated cork. Some small lots will be shipped for experimental purposes, as ordinary cargo.

Ohanez Grapes are sent from Almeria, Spain, for journeys of from 35 to 45 days across the tropics, as open deck cargo. These keep much longer after arrival at destination, because of not having been in cold storage.

Victoria.

VICTORIAN FRUITGROWERS' CENTRAL ASSOCIATION.

The Council meeting of the above Association was held on February 21st, 1923. President, Col. W. E. James in the chair. There were also present Messrs. H. H. Hatfield, J. Tully, A. F. Thiele, F. Thomas, C. W. Grant, H. Henderson, V. R. McNab, G. H. Sprague, W. H. Carne, — Simpson, J. H. Lang, J. G. Aird, R. G. Miles, R. Mair, E. E. Meeking, R. E. Boardman, W. J. Foster and Secretary F. H. Burbury.

Prune Growers Association.

A letter was received from the Prune Growers Association of N.S.W. requesting that Victorian growers form an Association on similar lines. Mr. McNab stated that it was essential that an organization should be formed in Victoria, as there were 11,000 acres of prunes under cultivation and increased quantities coming into bearing each year. Further discussion was deferred to next meeting.

Victorian Reso Train.

The Railway Commissioners wrote stating that a special train on similar lines to previous ones, would be leaving Melbourne at 2 o'clock, on 1st March, returning at 4.5 p.m. on Saturday 17th. The districts to be visited would be Alexandra, Nagambie, Rushworth, Stanhope, Shepparton, Ardmora, Dookie, Mooropna, Tatura, Kyabram, Echuca, Rochester, Bendigo, Harcourt, Castlemaine etc.

Fruit Pool.

Mr. W. J. Foster reported that no good had resulted from the recent deputation to the Ministers of Customs on fruit pool prices. He also made a personal explanation regarding recent articles which had appeared in the "Age."

Mr. J. Tully (Doncaster) said that there were several things which wanted clearing up, and if the articles were true it was the duty of fruit growers to clear up these matters. If the state-

ments were untrue, it was their duty to assist the officers of the pool in refuting them. They as growers, wanted everything to be fair and aboveboard.

After further discussion a resolution was carried on the motion of Mr. Lang and Mr. McNab expressing full confidence in the members of the Fruit Pool Board.

Chamber of Agriculture. Messrs. A. F. Thiele and H. H. Hatfield were appointed delegates to the Farmers' Convention which is to be held at Hamilton, on April 10-12th.

Hail Storm Insurance. It was decided to ascertain from district associations if growers would entertain proposals for insuring their fruit against hail. It was also resolved to approach the Australian Dried Fruits Association on this matter.

State Advisory Board. The assistant Minister for Agriculture wrote stating that the nominations for the board had already been accepted by the Commonwealth Authorities, and matter could not be re-opened. No useful purpose could therefore be attained by an interview.

Messrs. Aird and Meeking presented

a report regarding meeting of State Advisory Board held during February.

Annual Convention (Central).—It was decided that same be held at Frankston on May 2-4th.

Australian Conference of Fruitgrowers.—It was decided that two delegates be appointed. The third to be appointed by the Victorian Citrus Association. Messrs. Hatfield and Bailey with W. J. Foster as emergency were appointed. The conference will be held in Melbourne, from May 7th to 12th.

The next meeting of the Central Executive will be held on March 21st. at 1.45 p.m.

Tyabb.

Hints for Cool-Storers.

Mr. J. Young, a Director of the Tyabb Co-operative Cool Stores gave a short address at the Fruitgrowers' meeting consisting in the main of hints as to how growers can assist themselves in the obtaining of successful cool storage results. Cases should be at all times new; second-hand cases, no matter how good were almost sure carriers of disease or conditions conducive to disease.

Then again the new case should be well dried. He was experimenting with cases direct from the mill. Some had lost 4½ lbs. weight in a few days. The average loss was considerably over 3lbs.; but even at 3lbs. it meant that in a 30,000 case store over 40 tons of water had to be turned to ice and those 40 tons of ice had to be kept at a temperature of 32deg. (just freezing point) all through the season, all of which efforts should be conserved for the keeping of a regular temperature if not saved entirely.

In addition he had seen several cases in the Tyabb Cool Stores, which had been put in as they came from the mill, come out coated with mildew. Nothing produces disease and wastage quicker than the presence of moisture. Growers, thus had it in their own hands to effect improvements.

SWANN & Co.

Established 1822

A century's experience in handling
FRUIT OF ALL DESCRIPTION

All consignments for U. K. will have
Personal Supervision and Attention.
Account Sales and Cheques despatched
immediately after sale

**3, Salters' Hall Court, London,
E. C. 4, England**

Cables:—FIREBRICKS, LONDON
Bankers:—Bank of England

Australian Representative—
Chas. E. Howship, 129 Queen-st.,
Melbourne, and Surrey Chambers,
Perth, W.A.

Victorian and Tasmanian Agents:
Bailey, Baldwin Pty. Ltd., 552 Flinders
Street, Melbourne.

The Difference Between Profit and Loss Lies in Clean Orchards

A New Era in Orchard Sprays

GUMLYPTA ORCHARD SPRAY

The combined insecticide and fumigant that can be used on your trees at any time of the year, and costing less than 8d. per gallon for effective strength. Destroys Woolly and all Aphids, Red Spider and all Scale Insects, White Louse, White and Pink Wax.

We recommend 1 part Gumlypta to forty parts water for general purposes. GUMLYPTA ORCHARD SPRAY is Eucalyptus Oil and other insect destroying oils scientifically blended with Carbon Bi-sulphide, etc., so as to mix with water at any strength. Prevent Fungus growth and Leaf Curl, etc.

Thousands of gallons sold throughout Yanco, Gosford, Wyong, Orange, Richmond (N.S.W.), Mildura, Castlemaine (Vic.), Stanthorpe, Mapleton (Q.), and the Huon (Tasmania).

PRICES:—7/9 per gallon in 4 gallon tins, 8/6 in 1 gallon tins, F.O.B. Sydney

Pamphlet and Testimonials on request

GILLARD GORDON (Aus.) LTD., Rozelle, N.S.W.



Brown Rot.

This disease is becoming in the Tyabb district rather a well known enemy. Plums are the sufferers, though Apricots are also attacked. One grower reports having found it present in one or two Gravenstein apples, which he had picked up. He believed it had attacked the apples after they had fallen.

It is probable, however that a good deal more plum-spraying will have to be carried out than is at present prevalent.

It is to be hoped that the plum market will then be a bit brisker than to-day, otherwise it will be hard to find the tree which will show a profit to its optimistic grower.

[The high price of sugar keeps the prices low for plums. Editor "Fruit World."]

Tyabb Goods Yard.

Correspondence has appeared in the daily press in regard to congestion at the Tyabb Railway Yards. The fruit-growers at their recent meeting emphatically denied that there was undue congestion, and asserted that the name of the association had been wrongly used by the correspondents.

NYAH, WOORINEN AND BUNGUNYAH.

The delegation from the Central Citrus Association which recently toured Victoria was impressed with the progress noted at the above districts in regard to the growing of vine and citrus fruits. An opportunity was afforded the delegates to see the districts, and cars were placed at their disposal. The energetic committee of the local citrus association headed by Messrs. A. R. Lawrence, Fraser Gandy did all in their power to make the short stay interesting and instructive.

The approximate area under vines and orchards in Nyah is about 3,000 acres, and is estimated that the production this year will be 1,000 tons of dried fruit. The citrus crop last year was about 30,000 cases.

Woorinen A young settlement which adjoins Nyah also has 3,000 acres planted to vines only, mainly sultanas, currants and gordos and it is expected that 500 tons of dried fruit will be harvested this year. Soldier settlers who planted up about 2½ years ago will take this season about 15 cwt to a ton to the acre.

Taking an average of a ton to the acre it will be seen from the foregoing figures that within the next 2 or 3 years Nyah and Woorinen and districts will be producing on an average from 5,000 to 6,000 tons of dried fruits per annum. There are three dried fruit packing sheds at Nyah at present, owned by the Nyah Cooperative Co., E. J. Thwaites and J. and K. McAlpine. Mr. G. W. Lewis is also building a shed. The Co-operative Company have a branch shed at Woorinen.

The visitors were shown over two of the above sheds, and calls were also made at the Two Bays citrus and vines nurseries, and other places of interest.

Bungunyah. A new settlement across the river from Nyah was also visited. This settlement which is five miles from the Nyah township is steadily advancing, about 2,000 acres are now being planted to citrus vines. The soil of Bungunyah is a very rich, black sandy loam, entirely different from Nyah which includes clay, red loam and light sand. There is a pump connection between the two districts. This new area is watered by two pumps, one on the Murray and one on Lake Willaura. Watering is by gravitation from Willaura when the lake is full.

The question of a packing shed at Nyah for oranges and the future of the industry was discussed with the local growers. In the evening the visitors were entertained at a Smoke Social by the local Returned Soldiers' Association.

Merbein.

Our correspondent at Merbein writes:—

Currant picking generally started about Mid-February.

After Currants are finished Sultanas are harvested right through March. Then the raisins (Gordos and Wal-thams) are treated.

The season has been a favorable one right through and promise as anticipated earlier in the season. Generally crops all round are showing medium to heavy.

Regarding diseases, the weather has been against them, as dry weather was experienced right through. Most growers have sprayed 3 and 4 times during the season. We use the Bordeaux Mixture as it answers for Black Spot, downy mildew also Oidium. The strength generally being 7,4,50 (7 blue-stone to 50 gallons water and enough lime to neutralise, 4 to 5 lbs.)

Manuring.—After the crops are off, every alternate row is ploughed and green manures, (peas and beans) drilled in with superphosphate. If sown before the final irrigation in April these make good growth, and are disced down and ploughed in at flowering (October) Artificial manures, such as blood and bone, market garden, animal fertiliser etc., are also used to the extent of 5 to 6 cwt. per acre, and are ploughed in with the first ploughing July-August.

The 4th. irrigation is now in progress as I write (July 26); the river is now below Summer level, but we are practically assured of sufficient water for the season.

"Business as Usual" was evidently the motto of the widow who caused the following epitaph to be placed on her husband's tomb:—
Beneath this stone in hopes of Zion
Lies the late landlord of "The Lion."
Resigned unto the Heavenly Will,
His widow keeps on the business still.

Orchardists and Exporters

Why not consign your fruit to **MANCHESTER**—the heart of **INDUSTRIAL LANCASHIRE**—there is no other area in the **WORLD** where cities and towns are so thickly clustered together within so small a compass!

Manchester

IS THE COMMERCIAL
CENTRE OF THE UNITED
KINGDOM.

No other port in the United Kingdom can claim to serve a population of 13 millions within a radius of 75 miles of its docks.

In the past, the bulk of Australasian fruit consumed in Lancashire has been landed in ports many miles away, and consequently heavy railway charges are incurred—whether directly or indirectly, these railway charges have to be borne by **YOU**.

Why should this be so when you can ship direct to **MANCHESTER** at the same rate of freight as paid to any other port in the United Kingdom?

FRUITGROWERS AND EXPORTERS—Ship your fruit direct to

Manchester

and you will be marketing in one of the foremost markets of the **WORLD**.

Write to-day for full particulars to

N. V. WADE,
c/o ROYAL EXCHANGE,
SYDNEY, N.S.W.

Australian and Southern Tasmanian Representative of

The North of England Fruit Brokers Ltd.

Manchester, England

Answers to Queries.

Glossing Prunes—Grafting on Winter Majetin—Black Aphid of Cherry.

Glossing Prunes.

R. R., Nyah West, Vic., asks for particulars of the quantities and method of glossing Prunes after they are dried.

Answer.—After Prunes have been sweated, the fruit should be given a dip in boiling water, to be immediately followed by a dip in an almost boiling mixture of glucose and water, or else glycerine and water, having the consistency of thin cream. This has the effect of softening and glossing the skins. About one-half minute in the boiling water, and two minutes in the mixture, is sufficient.

Grafting on Winter Majetin.

"Orchardist," Mooroolbark, Vic., writes:—"Could you tell me the reason for grafts not taking on 'Winter Majetin' stocks? I grafted Yates and Jonathan on to 'Bismark,' 'Prince Albert' and 'Winter Majetin,' and all are growing well with exception of the 'Winter Majetin.' The trees are, of course, blight proof, and were strong, healthy trees about 16 years old, but have failed without exception, although done by the same methods on the same day."

Answer (by A. F. Thiele, Doncaster, Vic.).—I have never grafted old W.

Majetin stocks, so I can not tell the reason. It may be that they were grafted a little too early, as the Majetin is very late in putting out its leaves, which shows that the sap is late in coming up. I can not think of anything else, that is if the operation was correctly done.

Answer (by J. H. Lang, Harcourt, Vic.).—It is impossible to say definitely on limited information given. The Winter Majetin, being later than the other varieties in starting growth in the spring, the trees may not have been forward enough to get best results when grafting.

* * *

Black Aphid of Cherry.

"Orchardist," East Tamar, Tasmania, writes:—

Could you give me any information as to the manner in which Black Aphid of the Cherry can be controlled? This pest first made its appearance here (in my orchard) in 1921 on some Cherry trees fully 16 years old; last season it spread through the whole plantation and on some trees I did not pick a marketable Cherry.

(2) Are all varieties subject to it?
(3) Is a winter spraying of oil or lime sulphur—in addition to tobacco spraying in the spring—of any help?

(4) Is the winter stage carried over on the roots and is any treatment necessary here?

(5) Is this pest identical with the Black Peach Aphid?

Answer (by W. W. Froggatt, N.S.W. Government Entomologist).—

(1) The best way for dealing with aphid attacking Cherries, which is identical with Peach Aphid, would be to treat them in the same manner, that is, spraying the trees as soon as the first sign of aphid appears on the leaf buds with tobacco and soap wash.

(2) I do not know if this aphid attacks some of the hardy varieties of Cherries.

(3) Yes; it is advisable to spray in winter if there is any sign of aphid, otherwise I do not think it is necessary.

(4) In most cases the winter eggs are deposited over the rough bark on the trunk of the tree or in the ground under the surface at the base of the trunk.

(5) The Cherry Aphid is identical with the lighter coloured of the two distinct Peach Aphids.

Answer (by Mr. C. French, Junr., Government Entomologist).—

(1) Use Nicotex or Black Leaf 40.

(2) Yes; in Victoria.

(3) Yes; important.

(4) Yes; manurial insecticide worked into soil will destroy winter stage of aphid.

(5) Yes.

ORCHARDISTS!!

Your Conception of the Perfect Spray Plant has Materialised in the "Cooper" Perfect Balance

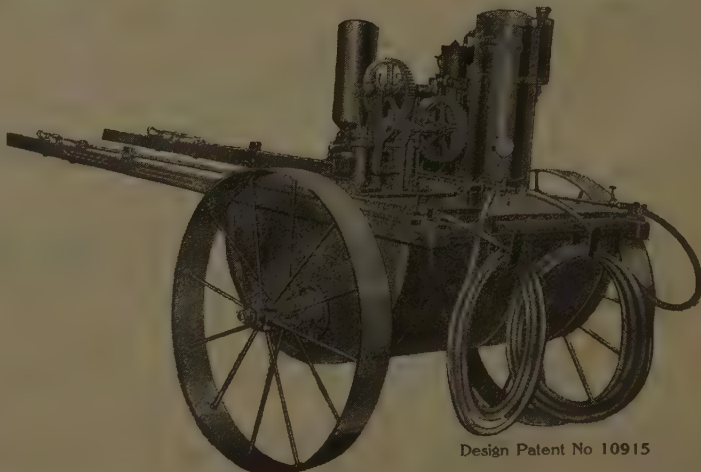
It possesses just the advantages that you look for. The equipment is highly efficient, and the strength, balance, and ease of operation leave nothing to be desired. The broad wheels ensure easy pulling over soft soil and the patented Balancing Design lightens work for the horses. When you think of the loss caused by orchard pests and the time and labour spent in combating them you will realise that a Spray Plant like this fills a long-felt need.

Let us send you further particulars.

COOPER

Engineering Co. Ltd.

129 SUSSEX ST., SYDNEY
350-358 SPENCER ST., W. MELBOURNE



Design Patent No 10915

Clark & Fauset Ltd., Brisbane; New Zealand Loan & M.A. Co. Ltd., Hnghenden, Rockhampton, and Townsville; Australasian Imp. & H.F. Co., Adelaide; Harris Scarfe Ltd., Perth; J. A. Semple & Co., Launceston, H. C. Henthorn and Co., Hobart, Tasmania.

COOKSLEY & Co.

(W. P. Cooksley)

Reliable Fruit Agents

23 Years' Experience

TRY THEM!

FRUIT EXCHANGE, BRISBANE
QUEENSLAND

Shipping No. 29

Reference—Commercial Banking Co.
of Sydney, Ltd.

Ship Your Oranges, Lemons, Grapes to New Zealand

All consignments for
this market will have
careful attention and
realize highest prices
if sent to

**The Co-operative
Fruitgrowers of Otago
Limited, Dunedin**

Personal supervision of every
consignment.

Cheques posted promptly.

Drop us a Line or Cable
"Peachbloom," Dunedin.

SOMERVILLE SHOW

Adjoining Somerville Railway Station

**Wednesday,
March 14th, 1923**

Victoria's Greatest Local
Fruit Show.

Pipe Band Engaged.

Horse Events, High Jump,
etc. Poultry.

Special Train leaves Melbourne
9.30 a.m.

S. S. GAULT, Secretary

Processed Strawberries and Strawberry Pulp.

Canadian Methods.

The following information has been
supplied by the Canadian Trade Com-
missioner's Office in Melbourne:—

Strawberries may be packed under
what is known as the Cold Pack Pro-
cess. That is to say that they may
be put down in sugar, as follows:—
The berries are carefully sorted and
selected for uniformity and maturity,
after which they are packed in sugar,
generally one pound of sugar to each
two pounds of fruit. The fruit is
chilled down to about forty degrees,
generally before the sugar is placed
thereon. After the sugar is thoroughly
mixed with the fruit, it is packed in a
container, preferably hard-wood, headed
up and put in cold storage, where it
is held at a constant temperature, pre-
ferably around 29 to 30 degrees.

Strawberries are also packed in heavy
syrup, light syrup, in water and solid
pack. Strawberries packed in heavy
and light syrup are filled into the cans
raw (the amount necessary for each
can as defined by the regulations). The
syrup is poured upon the fruit, said
syrup to be of a degree defined in the
regulations, and of a quantity suffi-
cient to make the net weight. The
can is then sealed and cooked.

Strawberries in water are packed as
follows:—The can is filled with berries
to the amount required by the regula-
tions. Added to these berries is enough
water to fill the can. This is sealed
and cooked.

Solid pack Strawberries are those
which have been partially cooked be-
fore filling into the can. They must
contain no more added juice than is
absolutely necessary and under no con-
dition must they contain more than
5 per cent. of added water. When filled
with the partially cooked berries, the
can is sealed and the cooking comple-
ted.

The meanest man on record is said
to have sold his son-in-law one half
of a cow, and then refused to divide
the milk, maintaining that he sold only
the front half. The buyer owning the
cow's mouth was also required to feed
her and carry water to her three times
a day. Recently, the cow hooked the
old man, and now he is suing his son-
in-law for damages.

"The Key to Good Health."

Worry, which can best be described as
over anxiety or fear, undermines health more
than any other cause in this world. Quit
worrying—develop confidence and faith in
one's self, and the effect on health will be
astounding. If the digestion is out of
order and constipation, flatulence and loss
of appetite trouble you, don't scour the
stomach with purgatives, but take a little
A.M.S. as directed. It is a mild but very
effective remedy made from nature's herbs
for all stomach troubles. At all chemists
5/-, or direct from T. A. Dickson, Chemist,
Geelong, at 3/6 per bottle.

ARRESTO

**A Positive Remedy
For**

**TOMATO WILT, TOMATO
BLIGHT, DOWNY MILDEW**
(on Grape Vines), **CURLY
LEAF** (on Peach Trees).

Non-Poisonous—

Absolutely Safe to Use.

**EFFECTIVE IN THE OR-
CHARD, THE KITCHEN GAR-
DEN, AND THE FLOWER
GARDEN.**

Thoroughly Tested.

Numerous Testimonials.

**Packets, 1/6 each (posted, 2/-).
In Bulk—7 lb. lots or more—
1/3 lb. (Postage or Freight
extra).**

Sole Proprietors and Distributors

LAW, SOMNER
(PTY. LTD.)

Seed Merchants and Nurserymen
139-141 Swanston Street, MELBOURNE

**The Auckland (N.Z.) Market
offers an excellent market to
all Growers of**

**Mandarins, Passions,
Oranges, Pines Etc.**

By consigning to—

Radley & Co. Ltd.

Fruit and Produce Merchants
AUCKLAND, N.Z.

Growers will obtain Highest Mar-
ket Prices.

Our large salesrooms cover 22,600
feet of floor space, and are right
in the centre of the Auckland
City Markets.

Growers have no need to prepay
sea freight by shipping through
Stephen McCormick, forwarding
agent, Sydney.

Inquiries regarding N.Z. market
will be gladly answered.

Address correspondence: P.O. Box
665, Auckland.

**CABLES: "RADLEY AUCK-
LAND."**

**BANKERS: Bank of New South
Wales.**

SUBSCRIBERS' PAYMENTS RECEIVED.

The following are the subscriptions received from January 20th to February 20th, 1923. The month quoted in parenthesis indicates to what date the subscription is paid. These are exclusive of the subscribers who have paid to local agents or to our offices in the various States:—

U.S. Dept. of Agric., Washington (Dec., '23). W. R. Alderson (Dec., '24). E. Ashby (Oct., '23). J. W. Bailey (Dec., '24). Bailey Baldwin Pty. Ltd. (Dec., '23). S. Barnes, M.L.A. (Oct., '23). H. Beardmore (May, '23). A. Boatwright (Dec., '23). E. E. Burgess (Dec., '23). P. R. W. Burns (Dec., '23). A. J. Campbell (Dec., '23). D. V. Chapman (Jan., '24). P. J. Clark (Dec., '23). Co-op. Frgrs. of Otago Ltd. (Dec., '23). H. H. Dunn (Jly., '23). Dennys Lascelle Ltd. (Dec., '23). J. Doyle (Nov., '23). F. L. Edmunds (Dec., '23). W. F. Esperianni (Dec., '23). F. Finger (Jly., '23). W. R. Foster (Nov., '23). W. & C. Gowie (Dec., '23). J. Hansenstein (Jan., '24). W. A. Hawse (Dec., '23). H. H. Hawken (Jly., '24). J. B. Heckley (Dec., '23). Miss E. Hewitt (Jly., '23). J. J. Hoare (Jan., '24). T. H. Houffe (Aug., '23). D. J. Hughes (Sep., '23). W. H. Ikin & Co. (Dec., '23). E. W. Ivory (Dec., '23). E. Jenkin (Jly., '23). Johnson & Harfield (Nov., '23). Joel and Son (Aug., '23). P. H. Kapulair (Dec., '23). S. A. Kino & Co. (Jan., '24). Geo. C. Lang (Jan., '24). T. Lawford (May, '23). M. Leonard (Aug., '23). W. J. Long (Feb., '22). D. Martin (Sep., '23). J. A. Millar and Co. (May, '23). H. Mills (June, '23). H. M. Mogensen (Oct., '23). E. Morrison (July, '23). J. Morrison (January, '23). Jas. McCorkill (Oct., '22). McFarlane & Co. (Dec., '23). H. E. Napier (Dec., '23). A. Nicolas (Sep., '23). A. G. Palmer (Apr., '23). Palmdale Co. (Dec., '23). W. H. Passmore (Jan., '24). Pearce Bros. (Dec., '23). E. A. Peers (Dec., '23).

Thomas Petty (Jly., '23). R. Pickford (Jan., '24). C. Piesse & Co. (Oct., '23). B. C. Quick (Dec., '23). H. Rimon (Oct., '23). W. J. Ross (Jan., '24). Sarnia Packing Pty. Ltd. (Jan., '24). Geo. Selth & McRae Ltd. (Dec., '23). J. L. Small (May, '25). S.A. Fruit & Veg. Co. (Oct., '23). V. Stooke (Dec., '23). C. A. Stubington (Dec., '23). A. E. & T. Studds (Jan., '24). Studley Preserving Co. Pty. Ltd. (Nov., '23). Tas. Hop and Frgrs. As. (Dec., '23). Toomey Valley Orchards Pty. Ltd. (Dec., '23). F. Topping (Jan., '24). Trescowthick Bros. (Dec., '23). H. W. Van Bertouch (Jan., '24). C. Walker (Dec., '23). E. Weitnauer (Nov., '23). A. Wilkinson (Dec., '23). E. A. Williams (Jan., '24). A. E. Wright (Sep., '23). K. F. Zegehn (Jan., '23).

Apple "Willie Sharp."—Specimens of the Apple "Willie Sharp" were brought to the "Fruit World" office at the end of January; these were grown by Mr. E. H. Hatfield, at Bayswater, Victoria. This variety has points in its favour as an early export Apple. The fruit is of a good dessert quality; the tree is a strong grower, practically blight proof; a heavy and consistent bearer. The fruit has a clear waxy skin, similar to "Dunn's" Apple. "Willie Sharp" is planted largely in the North Island of New Zealand; it was raised at Sharp's nursery in New Zealand, which firm also produced "Sharp's Early," "Sharp's Late Red," &c.

No man will discover the best way to do a thing unless he likes doing it.

DON'T PLANT FRUIT TREES until you have seen the PLANTERS' GUIDE

Containing Valuable Information for intending Fruit Tree Planters
Post Free to any address. Send now to the

Balhannah Deciduous Nurseries, Balhannah, South Australia
For your copy.

These nurseries are devoted exclusively to the propagation of Highest Grade Deciduous Fruit Trees, and can offer prime trees in all the leading commercial varieties. Inquiries solicited. Business established over a quarter of a century.

H. N. WICKS, Proprietor

SHIP TO LIVERPOOL

ROGERS, WHITE & CO.

FRUITBROKERS

37 VICTORIA STREET, LIVERPOOL, ENGLAND

For particulars apply to

PARNHAM PTY. LTD., 60 Queen Street, Melbourne

"As busy as Western Market"

H. Louey Pang

& CO. Pty. Ltd.

Fruit, Produce and
Commission Agents

172-176 Lit. Bourke St., Melbourne
(Also at Victoria Market)

P.O. Box—No. 795 Melbourne

Buying and Selling Fruit and Produce at
this locality is as busy in the mornings as
Western Market.

Good Prices Assured.

Cheques sent daily—immediately the con-
signment is sold.

References—London Bank, Swanston St.
Melbourne. Phone—Central 10,506

H. C. AUSTIN

Wholesale Fruit
Merchant

FRUIT & PRODUCE EXCHANGE

ADELAIDE, S.A.

Importer and Exporter

(30 years' experience fruit trade)

Solicits a Trial Shipment,
especially Bananas, Pines
and Passion

An assured outlet. Highest ruling
prices.

Correspondence Invited.

BANKERS: E.S. & A., Rundle Street,
Adelaide.

"Telegrams" Austin, Adelaide.

Grade Your Fruit Quickly and Accurately with

The LIGHTNING FRUIT GRADER

(Patent Applied for)

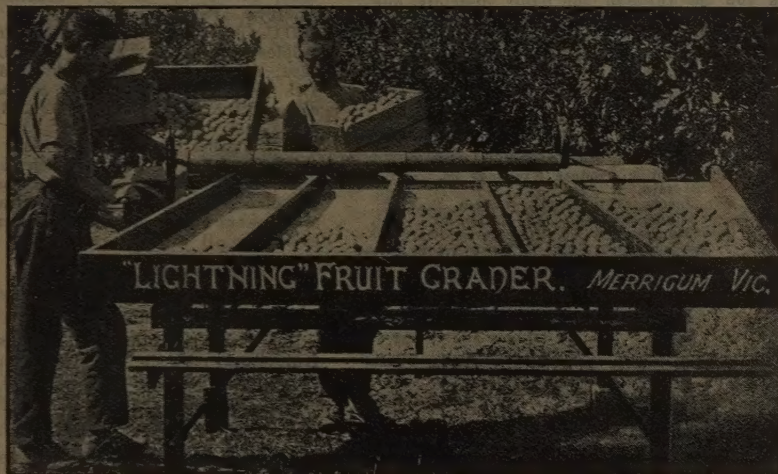


Illustration of Standard No. 1 Hand or Power Grader.

Length, 9ft., or 6 dump bushel cases. There is also room for two packers at the end of the machine.

Grades

Oranges, Peaches,
Apricots, Plums,
Apples, Lemons
and all other fruits

Like Lightning

Perfectly simple to operate

Fruit rolls on to belt,
thence into padded bins,
no drop anywhere.

The Rubber Cylinder and
Belt insures Fruit against
bruising.

Made in Three sizes up to
10 Grades.

The Lightning Fruit Grader,
will be exhibited at the
SYDNEY ROYAL SHOW
March 26 to April 4

Write for particulars

LIGHTNING FRUIT GRADER CO., Merrigum Victoria

ORCHARD COVER CROPS

Are Essential to Success in

Fruit Growing

To get the best results from the use
of Orchard Cover Crops the Finest
Quality Seed must be used at all
times. On this account it is an in-
surance to make certain by always
sowing

BRUNNING'S "INCOMPARABLE" SEEDS

Brunning's Cover Crop Mixtures have been
scientifically worked out, contain only the best
seed, and are made up especially to suit par-
ticular requirements.



Watch Our Seeds Grow

Headquarters for all Farm Seeds

Including Grasses, Clovers,
Field Peas, Tick Beans, Tares,
"Mesgawi" Berseem, Rape,
King Island Melilot, etc.

For full particulars see our Seed mixture Leaflet, No. 1924,
which may be had by all interested: Post Free on application.

BRUNNINGS

F. H. BRUNNING PTY. LTD.

Everything for the Farm, Garden, and Orchard

64 ELIZABETH STREET, MELBOURNE

Our Reputation of 71 Years

Is the best testimonial to
the quality and integrity of
Brunning's Seeds.

The Fruit Trade

Every Firm should be Officially Represented

if only by a line or two—Our Readers are Your Clients. It is an able and wise introduction, and when you go through the fruit districts our Readers will have already known you through us. It pays best to send Consignments Regularly—Not Occasionally—to the best markets, by doing so you strike the rising and falling markets and make a fair average for the season.

A ten times wider and better distribution will ensure a ten times greater production, at more payable returns. It is large and valuable exports from settled industries that make a nation prosperous.—Ed. "F.W."

This Journal is the recognised representative of the FRUIT TRADE in the Southern Hemisphere.

REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS.
Advertising in this Journal.

NEW SOUTH WALES.

Sydney.

Chilton, F. City Fruit Markets.
Hopkins & Lipcombe, Fruit Exchange.
Rogers, F. H. G. Fruit Exchange.
Rule & Beavis, Fruit Exchange.
Wade, Noel, V. Royal Exchange (representing the North of England Fruit Brokers Ltd., Manchester, Eng.).
Wade, Capt. W. J. M.B.E., 8 Bridge St. (representing Port of Manchester).

VICTORIA.

Melbourne.

Coastal Farmers' Co-op. Society, Western Market.
Davis, J., Western Market.
Dennys, Lascelles Ltd., 509 Collins Street.
Lister, G., Western Market.
Mills & Co., J. B., 9 Queen Street (representing Northard, Lowe & Wills Ltd., London).
Mills, A., & Sons, Western Markets.
McClure, Valentine & Co. Pty. Ltd., 49 William St.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L. Little Bourke St.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 439 Flinders Lane.
Woolf, G., Western Market.

QUEENSLAND.

Brisbane.

Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
International Fruit and Produce Co., Fruit Exchange.
Robsons Ltd., Fruit Exchange.

WESTERN AUSTRALIA.

Perth.

Wills & Co. Ltd., G., Exporters.

SOUTH AUSTRALIA.

Adelaide.

J. Arnons, Fruit Exchange, Newmarket.
H. C. Austin, Fruit Exchange.
Wills & Co. Ltd., G., Exporters.

TASMANIA.

Hobart.

Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters and at London.

NEW ZEALAND.

Auckland.

Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.

Dunedin.

Co-operative Fruitgrowers' of Otago Ltd.
Paterson, Thos., & Co., Vogel Street.
Central Produce Mart, Moray Place.

ENGLAND.

London.

Bradley, F. C. & Sons Ltd., 35 Bow Street, Covent Garden.
Da Costa, Gerald, Covent Garden.
Fruit & Produce Exchange of Great Britain.
Jacobs, E. & Sons, Covent Garden.
Landauer & Co., 39 Eastcheap.
Margeson & Co. Ltd., Covent Garden.
Moore & Co. Ltd., F. W., 8 Arthur Street, London Bridge.
Monro, Geo., Ltd., Covent Garden.
Northard, Lowe & Wills Ltd., Tooley Street.
T. J. Poupart, Covent Garden.
Ridley, Houlding & Co., Covent Garden.
Swann & Co., 3 Salter's Hall Court, Walton, T., Covent Garden.

Hull.

Humber Fruit Brokers Ltd.
London and North Eastern Railway, Australian representative, E. Berchervaise, Geelong, Vic.
White & Son Ltd.

Liverpool.

J. Adam, Son & Co., Australian Agents: C. Plesse & Co.
Roger White & Co., 37 Victoria Street.

Manchester.

North of England Fruit Brokers Ltd., Port of Manchester (representative Capt. W. J. Wade, M.B.E., 8 Bridge St., Sydney, N.S.W.).

British and Australasian Market Reports

Great Britain.

London (6/1/23)—

The following are the prices ruling as published in the "Fruit, Flower and Vegetable Trades' Journal," January 6th, 1923:—

Apples—English, 3/- to 8/- per bushel; Oregon Newtowns, 14/- to 16/6; Jonathan, 8/- to 10/-; British Columbian Jon., 8/- to 9/-; Rome, 7/- to 8/-; Spitzenberg, 8/- to 10/- Bananas—Fyffe, 15/- to 30/- per crate; Hoya, 35/- to 40/- Dates—5/6 to 6/- doz. cartons. Grapes—English Muscat, 7/- to 10/- per lb.; Cannon Hall, 8/- to 12/- per lb.; Almeria, 22/- to 30/- per barrel. Lemons—300's, 24/- to 30/- per case. Oranges—Denia and Valencia, 420's, 30/- to 35/- 360's, 15/6 to 18/6. Pears—Cal., 18/- to 22/- Pines—1/6 to 5/6 each.

New South Wales.

Sydney (26/2/23)—

Mr. F. Chilton, City Fruit Markets, reports under date 26/2/23, as follows:—

Queensland Fruits—Bananas—10/- to 15/- per case. Pines—Smooths, 8/- to 9/-; Ripleys, 7/- to 9/- Tomatoes—4/- to 7/- per ½ case. New South Wales Fruits—Bananas—Tweed River, 10/- to 18/- per case. Oranges—7/- to 20/- per bushel case. Lemons—8/- to 20/- Passions—8/- to 15/- per ½ case. Peaches—2/6 to 6/- Plums—2/- to 6/- Grapes—Black, 6/- to 10/-; Muscat, 4/- to 7/-

Apples—Cooking, 2/- to 7/- per bushel case; eating, 2/- to 9/-; jam lots, 1/6 to 2/- Pears—W.B.C., 7/- to 11/-; B.D.C. and B.B., 6/- to 8/- Tomatoes—3/- to 9/- per ½ case. Victorian Fruits: Apples—Cooking, 4/- to 6/- per bushel case; eating, 5/- to 8/- Peaches—6/- to 10/- Pears—W.B.C., 8/- to 11/-; B.D.C., 6/- to 8/- Tasmanian Fruits: Apples—A.L.X., 4/- to 7/- per bushel case; A.L.F., 4/- to 6/-; W.P.M., 4/- to 7/6. Pears—W.B.C., 2/6 to 4/- per ½ case; B.D.C., 3/- to 3/6; G.B., 3/- to 4/-

The market is heavily stocked with medium-quality fruit, for which the demand is dull, but there is an enquiry for choice Tomatoes, Lemons, Oranges, and dessert Pears. A very poor demand exists for all varieties of Apples.

VICTORIA.

Melbourne, 27/2/23

Generally speaking all kinds of fruits have been plentiful during February, the warm weather in the middle of the month has however helped sales. Prices for fruit in the Western Market on the above date were as follows:—Peaches yellow fleshed variety such as Nicholl's Cling and Palmerston 7/8 case, Apples eating Sunnyside and Gravenstein mainly, 3/-, 7/- cooking 3/6, 5/- Pears ripe Williams are hard to sell at 1/6, 3/-, firm green fruit is bringing 5/6, 6/- Beurre de Caps, 4/-, 5/6 Grapes good well packed fruits, Waltham Cross, Muscatels and Raisin de Dames varieties 12/-, 14/-, poorly packed inferior fruit of the same varieties down to 2/-, 3/-

Small quantities of late Valencia Oranges are still coming forward, prices are around about 15/-, 18/-

Some well packed fruit is bringing up to 20/- a case. Local Lemons 10/-, 15/-, the supply is now short, and those growers who were able to hold their Lemons over the glut period are now reaping the benefit.

Pineapples are fairly plentiful realising 10/-, 14/-, double case earlier in the month 9/-, 10/- was the ruling price. Cavendish Bananas 14/-, 20/- double case. Tomatoes are bringing 8/-, 13/-

QUEENSLAND.

Brisbane, (23/2/23.)

Messrs Finlayson and Sons, Fruit Exchange report under date 23/2/23 as follows:—

Last week we received 800 cases of fruit from Somerville and Tyabb, and are advised of a further 1,000 cases of Apples, Pears, Plums coming forward. The first consignment of Pears arrived in an over-ripe condition especially the "Williams." The Plums were affected with the "Brown Rot" consequently sales were not too good. The other variety B.D.C. Pears arrived in splendid condition, and sold well. Present quotations are, Jonathan, 10/- to 11/-, Gravenstein 8/- to 10/6, A.L.F.

8/- (poor demand for small sizes) Pears, choice B.D.C. 11/- to 13/- medium 9/- to 10/-, Harcourt, W.B.C. and Gansells 13/- to 15/-.

Our special correspondent reports prices for other fruits as follows:—

Tasmanian Apples.—10/-, 12/-; local Apples, 8/-, 10/- Oranges.—Sydney, choice, 20/-, 21/6; medium and small, 17/-, 19/- Mildura 17/-, 18/- South Australian Lemons.—16/-, 18/-; Italian faulty 14/-, 18/-; Peaches.—7/6, 8/- ½ bushel, Plums, Sydney, 8/6, 10/- local 8/6, 10/- Passion Fruit.—prime, 10/-, 12/- medium 8/-, 9/- Persimmons.—1/6 3/6, Persimmons 2/6, 5/-; Pineapples.—Bananas.—green cavendish, 2/6, 7/6; inferior 1½d. doz. Grapes.—local white 3½d. to 4½d. lb. black 5d. to 7d. lb.

Western Australia.

Perth (16/2/23)—

Apples—Jons, dumps, best, to 9/6; others, to 6/-; Cleos, dumps, to 9/-; flats, to 6/-; cookers, to 6/6. Pears—Bartlett's, to 8/6; others, to 5/- Oranges—to 11/6. Lemons—to 9/-; others, to 3/- Peaches—Best, 10/-, 13/9; others, to 7/- Nectarines—Best, to 13/3; small and overripe, to 6/- Plums—Pond's Seedlings, to 13/3; Wickson's, to 11/-; Satsuma, to 8/-; Kelsey, to 7/- Prunes—to 6/- Passion Fruit—Best, to 10/3; others, to 6/6. Grapes—Obanez and Muscats, to 9/9; Red Prince, to 8/3; G. Colmar, to 8/-.

South Australia.

Adelaide (23/2/23)—

Apples—Eating, 7/- to 8/- per case; cooking, 4/- to 6/- Bananas—Q'land, to 30/- Figs—8/- to 10/- Lemons—6/-, 7/- Nectarines—12/-, 14/- per doz. lb. Oranges—Valencias, 10/- case; Navels, 14/-, 16/- Peaches—6/-, 10/- Pears—Eating, 6/-, 8/-; cooking, 4/- Plums—Jap., 6/-, 8/-; dark, 4/-, 6/- Prunes—6/- Strawberries—8/-, 9/- per doz. lb. Grapes—Dark, 7/-, 8/-; Muscatels, 8/-.

New Zealand.

Dunedin (13/2/23)—

Reilly's Central Produce Mart Ltd. report, under date 13/2/23:—

N.Z. Grapes have been realizing exceptionally high prices. Gros Colmars last week realized 3/1 per lb., while local Hamburgs realized 2/- to 2/5, and Oamaru and Canterbury 1/9, 1/11, 2/- per lb. If growers of Australian Grapes were to send forward consignments of choice fruit there is no doubt very good values would be secured. We would expect to secure at least 10d. to 1/- per lb. for choice Australian Grapes. We strongly advise consignments.

Mandarins will soon be making their appearance, and for early consignments high prices will be secured.

Pines that have been coming forward have reached us in very bad condition, being black in centre, and prices have ranged from 16/- to 23/- per case.

We are now expecting shipments of Australian Lemons, and expect first-class quality Lemons to realize 22/- to 24/- per bushel case.

Passions coming forward have reached us in very bad order, and quite unsuitable for our trade, prices ranging from 10/- to 17/6 per case.

EXPERIENCES WITH SPRAY GUNS.

Generally Satisfactory.

In reply to a question regarding the use of Spray Guns, Mr. J. H. Lang, Harcourt, Victoria, writes as follows:

The spray gun is a time saver, one man can do the same amount of work as two could with ordinary nozzles. A careful workman will use no more material, possibly less; a lazy or careless workman would waste material. It is effective in getting at low down branches. I have only used the "Myers" Spray Gun, but I have examined the "Sunshine" and it seems equally good. It is useless to try and use a spray gun unless the motor pump is capable of maintaining a pressure of 250 pounds to the square inch with two hoses and nozzles. When the pressure is lower, the spray is not fine enough for effective work. Reserve of power is also advisable, better results being obtainable, when a surplus of material is being returned to the

vat through the overflow. Do not endeavour to use more than one spray gun on a motor pump.

Patent Export Case.—Messrs. J. B. Mills & Co., export merchants, of 9 Queen-st., Melbourne, have shipped two consignments of Apples, in both s.s. "Sophocles" and s.s. "Port Albany" in patent "air-free" cases, designed and patented by Capt. W. S. Hannan.

These cases take up no more space in ships' holds, yet permit air to penetrate into the stack without the necessity for inserting battens between each row.

Messrs. Mills & Co. are to be congratulated on their enterprise. As these cases are being put to a practical test, the result of the experiment will be awaited with much interest.

Sulphate of Ammonia for Citrus and Peach Trees.

The following is an extract from a letter received from C. R. Roper, Esq., Orchardist, Harkstead, Kyabram, Vic.

"I have used sulphate of ammonia with good results on citrus trees. Orange trees treated with 2 lbs. in the Spring set and held more fruit than those untreated.

This season green aphid played great havoc on peach trees in this district. My trees were almost entirely free from this pest. I attribute this to the stimulating effect of a dressing of 2½ lbs. of sulphate of ammonia per tree, which was applied early in the Spring, enabling the trees to outgrow the aphid.

"The Fruit World."—Copies of "The Fruit World" are mailed from the Head Office on the 1st of each month. Should there be any delay in receipt of copies, subscribers are asked to notify at once. New readers can subscribe through the Head Office or State branches, or through their local newsagent. The latter is often the easiest way of subscribing. Simply place your order with your local newsagent, and you receive "The Fruit World" regularly every month from him.

Growers and Shippers of Australian Fruits

GRAPES, CHERRIES, PEARS, EARLY PLUMS, APRICOTS, CITRUS FRUITS OF ALL DESCRIPTIONS, PINES, PASSIONS, ETC., ETC.

Will find it to their advantage to ship their fruits direct to

REILLY'S CENTRAL PRODUCE MART LTD., Moray Place, Dunedin, N.Z.

Using the direct boat twice a month from Sydney, or every ten days from Melbourne.

REMEMBER WHO FOUGHT to have the duty on CITRUS FRUITS removed, and fought strenuously for better SHIPPING SERVICE between our respective countries.

We have the Most Central and Largest Saleroom in the South Island
A Staff trained to the Work. Our Advice is at your Service

Write or Cable

"REILLY DUNEDIN"

and Satisfaction is assured

New Zealand.

The New Zealand Fruitgrowers' Federation writes under date February, 2nd:—

Preparations for the handling of the Apple Export from New Zealand are well in hand.

As in past years the Government guarantee on the apple export will apply but at a reduced figure, this season's guarantee being only sufficient to cover out of pocket expenses viz., 11/- per case.

The prospects at the time of writing are that for the English market last season's total will not be exceeded but orders are in hand at payable prices for a few thousand cases for the South American market with prospects of further orders as the season advances. [The Exports to United Kingdom last season totalled 114,000 cases.]

For the South American orders in the hands of the Federation a special N.Z. label has been prepared which will add much to the outside appearance of the case. This label will also be available for use for the English market and is meeting with much support. The object in view is to fully advertise New Zealand Apples and the label has been designed with that object.

The English export for this season will be confined to about three brokers all of whom averaged well on the 1922 season's shipment.

Arrangements are well in hand for the whole shipments to be financed by the Bank of N.Z. here which will mean a saving to the fruitgrowers exchanges etc. and also it is anticipated have a good moral effect on the brokers handling the fruit.

Despite the effects made to secure a reduction in freight the shipping companies have announced that no reduction below 5/- per case is possible. This will mean a reduced quantity for export as the average price of fruit in England does not allow a sufficient margin after paying this high freight rate.

The advantages and disadvantages of the "all risks" insurance policy have been fully discussed by those

concerned and it has been decided to dispense with this costly item for this season at any rate.

Since writing this, the announcement has come through that the Commonwealth Line have reduced their freight to 4/- with reductions possible for other Lines; this was well received here and we are earnestly hoping that the other Companies will come into line.

THE PORT OF MANCHESTER.

Capt. W. J. Wade, M.B.E., Australasian representative of the Port of Manchester, 8 Bridge Street, Sydney, writes:—

"As every facility exists at the Port of Manchester for efficient and rapid discharge of fruit and its sale and distribution—and, in fact, over two million packages of imported fruit were sold last year in the Municipal Auction Rooms, near the Ship Canal Docks—it is desirable that due prominence should be given to information as to sailings and services to Manchester, representing as it does a most favorable outlet for the sale and distribution of this commodity.

"Incidentally, I might mention that recent records prove that the population of the area comprised within a radius of 75 miles of Manchester numbers over 13 millions, a greater population than is contained within a similar radius of any other port (not excepting London)."

Queensland's Mountain Health Resort

(near Stanthorpe, on main Sydney-Brisbane line, 3,000 ft. above sea level)

A FIRST-CLASS and well-known Orchard property could be exchanged for Citrus Orchard or other property near Sydney. A splendid opportunity for any person desiring a bracing mountain climate. Particulars

"JONATHAN"

Stanthorpe P.O., Queensland.

ESTABLISHED 1879

Special Announcement to Australian Orchardists and Shippers!!

THOS. PATERSON & CO.

FRUIT & PRODUCE BROKERS & AUCTIONEERS
Vogel Street, DUNEDIN, New Zealand

HAVE THE OLDEST ESTABLISHED
AND MOST UP-TO-DATE MARKET

And Solicit Consignments of

**Australian Oranges, Lemons,
Passions, Grapes, Bananas, etc.,**

All Consignments sold under the personal supervision of Principals by our expert salesmen. We have our regular circle of buyers and can SECURE HIGHEST PRICES: Prompt returns a feature in our business.

A TRIAL SOLICITED

Address all correspondence TO P.O. BOX 132
DUNEDIN, cable 'Patricroft,' Dunedin
Bentley's Codes Private Fruit Code address

Don't WONDER what your crop will be!
MAKE SURE by using

"HARBAS"

THE SELF-EMULSIFYING RED OIL.

"HARBAS" mixes instantly and completely with cold water.
"HARBAS" never shows the least trace of free oil. It does not separate into layers.

"HARBAS" is specially prepared to ensure even distribution. It is the same at the bottom as at the top of the spray vat.

"HARBAS" has great penetrative effects on dormant insects, both in the egg and adult conditions.

"HARBAS" is made of special materials to secure a thick film which does not quickly wash off.

Many Oils LOOK like

—**"HARBAS"**—

But DON'T ACT like it

Use "HARBAS" for Red Spider and all Scale and Aphid Pests.

RETAIL SELLING AGENTS FOR VICTORIA:

F. R. MELLOR, 440 Elizabeth Street, Melbourne.
LAW, SOMNER PTY. LTD., Block Place, Melbourne.
LAWFORD'S FRUIT EXCHANGE, Doncaster.

Wholesale Representative for Victoria:

EDMOND RUSSELL, 60 Queen Street, Melbourne.